

**-«Қостанай облысы әкімдігі білім басқармасының Сарыкөл агробизнес және құқық колледжі» КМҚК
КГКП «Сарыкольский колледж агробизнеса и права Управления образования акимата Костанайской области»**

БЕКІТЕМІН/УТВЕРЖДАЮ:

**Директордың жөніндегі орынбасары/
Зам. директора по УР**

_____ Дедик Н. Е.
« ____ » _____ 20 __ ж./г.

ОҚЫТУ-ӘДІСТЕМЕЛІК НҰСҚАУ
«Кәсіби лексиканы қолдану кәсіби қызмет саласында
1513000« Ветеринария »мамандығының
2 курс студенттеріне арналған.

УЧЕБНО-МЕТОДИЧЕСКОЕ ПОСОБИЕ
по модулю
"Применение профессиональной лексики в сфере профессиональной
деятельности"
для студентов 2 курса
специальность 1513000 "Ветеринария".

на 2020-2021 учебный год

Оқытушы/Преподаватель: Салтовская Ю.П.

**Сарыкөл к. 2020 ж.
п.Сарыколь 2020 г.**

ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

Методические указания по выполнению практических заданий предназначены для организации работы на практических занятиях по учебной дисциплине «Иностранный язык», которая является важной составной частью в системе подготовки специалистов среднего профессионального образования по специальности «Ветеринария».

Методические указания разработаны для обучающихся с целью оказания им помощи при выполнении практических заданий.

Практические задания являются неотъемлемым этапом изучения учебной дисциплины. Содержание практических заданий направлено на:

формирование практических **умений** в соответствии с требованиями к уровню подготовки обучающихся, установленными рабочей программой учебной дисциплины: – описывать явления, события, излагать факты в письме личного и делового характера;

– заполнять различные виды анкет, сообщать сведения о себе в форме, принятой в стране/странах изучаемого языка, делать выписки из иноязычного текста

– читать аутентичные тексты разных стилей (публицистические, художественные, научно-популярные и технические), используя основные виды чтения (ознакомительное, изучающее, просмотровое/поисковое) в зависимости от коммуникативной задачи;

– понимать относительно полно (общий смысл) высказывания на изучаемом иностранном языке в различных ситуациях общения;

– понимать основное содержание аутентичных аудио- или видеотекстов познавательного характера на темы, предлагаемые в рамках курса, выборочно извлекать из них необходимую информацию, оценивать важность/новизну информации, определять свое отношение к ней;

– вести диалог (диалог–расспрос, диалог–обмен мнениями/суждениями, диалог–побуждение к действию, этикетный диалог и их комбинации) в ситуациях официального и неофициального общения в бытовой, социокультурной и учебно-трудовой сферах, используя аргументацию, эмоционально-оценочные средства;

– рассказывать, рассуждать о себе, своих планах, своем окружении в связи с изученной тематикой, проблематикой прочитанных/прослушанных текстов; описывать события, излагать факты, делать сообщения;

– создавать словесный социокультурный портрет своей страны и страны/стран изучаемого языка на основе разнообразной страноведческой и культуроведческой информации;

обобщение, систематизацию, углубление, закрепление полученных теоретических **знаний**: – значения новых лексических единиц, связанных с тематикой данного этапа и с соответствующими ситуациями общения;

– языковой материал: идиоматические выражения, оценочную лексику, единицы речевого этикета, перечисленные в разделе «Языковой материал» и обслуживающие ситуации общения в рамках изучаемых тем;

– новые значения изученных грамматических явлений в расширенном объеме (глагольных форм (видо-временных, неличных), средства и способы выражения модальности; условия, предположения, причины, следствия, побуждения к действию);

– лингвострановедческую, страноведческую и социокультурную информацию, расширенную за счет новой тематики и проблематики речевого общения, понимать тексты, построенные на языковом материале повседневного и профессионального общения, в том числе инструкции и нормативные документы по профессиям НПО и специальностям СПО;

Обучающийся должен использовать приобретенные знания и умения в практической и профессиональной деятельности, повседневной жизни.

- готовности использовать теоретические знания на практике.

Практические задания по учебной дисциплине «Иностранный язык» способствуют формированию в дальнейшем при изучении профессиональных модулей, следующих общих и профессиональных компетенций:

- Понимать сущность и социальную значимость будущей профессии, проявлять к ней устойчивый интерес.
- Организовывать собственную деятельность, исходя из цели и способов ее достижения, определенных руководителем.
- Осуществлять поиск информации, необходимой для эффективного выполнения профессиональных задач.
- Работать в команде, эффективно общаться с коллегами, руководством, клиентами.

В методических указаниях предлагаются к выполнению практические работы, предусмотренные учебной рабочей программой дисциплины «Профессиональный иностранный язык».

При разработке содержания практических заданий учитывался уровень сложности освоения обучающимися соответствующей темы, общих и профессиональных компетенций, на формирование которых направлена дисциплина.

Выполнение практических заданий в рамках учебной дисциплины «Профессиональный иностранный язык» позволяет освоить комплекс работ по выполнению переводов, речевого общения, понимания текстов, построенных на языковом материале повседневного и профессионального общения.

Методические указания по учебной дисциплине «Профессиональный иностранный язык» имеют практическую направленность и значимость. Формируемые в процессе практических работ умения могут быть использованы обучающиеся в будущей профессиональной деятельности.

Методические указания предназначены для обучающихся колледжа, изучающих учебную дисциплину «Профессиональный иностранный язык» и могут использоваться как на учебных занятиях, которые проводятся под руководством преподавателя, так и для самостоятельного выполнения

практических заданий, предусмотренных рабочей программой во внеаудиторное время.

Практические работы проводятся в учебном кабинете, в объеме, предусмотренном рабочей учебной программой, обязательным этапом является самостоятельная деятельность обучающихся.

Оценки за выполнение практических работ выставляются по пятибалльной системе. Оценки за практические работы являются обязательными текущими оценками по учебной дисциплине и выставляются в журнале теоретического обучения.

Методические указания включают в себя следующие разделы:

-проверку знаний - проверка теоретической подготовленности по теме практического задания;

- инструктаж - информация для обучающихся о целях, средствах, трудоемкости, сроках выполнения, основных требованиях к результатам работы, формах контроля практических заданий;

- выполнение задания - выполнение практического задания в соответствии с технологической картой;

- анализ проделанной работы - анализ полученных результатов, характер и причины ошибок, степень овладения обучающимися запланированных умений.

Содержание УМК

- 1. Основные компетенции по дисциплине.**
- 2. Рабочая учебная программа.**
- 3. Цель и планируемые результаты освоения дисциплины.**
- 4. Условия реализации программы учебной дисциплины.**
- 5. Печатные издания**
- 6. Электронные ресурсы.**
- 7. Контроль и оценка результатов освоения учебной дисциплины.**
- 8. Англо-русский словарь терминов.**
- 9. Разработки самостоятельных практических работ на весь объем учебной программы.**
- 10. Список использованной литературы, интернет источники.**

1.Основные компетенции по дисциплине.

ОК 1. Понимать сущность и социальную значимость своей будущей профессии, проявлять к ней устойчивый интерес.

ОК 2. Организовывать собственную деятельность, выбирать типовые методы и способы выполнения профессиональных задач, оценивать их эффективность и качество.

ОК 3. Принимать решения в стандартных и нестандартных ситуациях и нести за них ответственность.

ОК 4. Осуществлять поиск и использование информации, необходимой для эффективного выполнения профессиональных задач, профессионального и личностного развития.

ОК 5. Использовать информационно-коммуникационные технологии в профессиональной деятельности.

ОК 6. Работать в коллективе и команде, эффективно общаться с коллегами, руководством, потребителями.

ОК 7. Брать на себя ответственность за работу членов команды (подчиненных), результат выполнения заданий.

ОК 8. Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации.

ОК 9. Ориентироваться в условиях частой смены технологий в профессиональной деятельности.

2.ЖҰМЫС БАҒДАРЛАМАСЫ ӨНДІРІСТІК ОҚЫТУДЫҢ РАБОЧАЯ ПРОГРАММА УЧЕБНОЙ ПРАКТИКИ

Кәсіби лексиканы кәсіби қызмет саласында қолдану

Применение профессиональной лексики в сфере профессиональной деятельности

(модульдің немесе пәннің атауы / наименование модуля или дисциплины)

Мамандық /Специальность: 1513000 «Ветеринария»

(коды және аты / код и наименование)

Біліктілік /Квалификация 1513053 «Ветеринарлық фельдшер» /

«Ветеринарный фельдшер»

(коды және аты / код и наименование)

Оқу түрі/Форма обучения очная на базе основного орта білім базасында
/среднего образования

Общее количество часов **64**

Разработчик (-и) **Салтовская Юлия Петровна, Попель Наталья
Анатольевна**

_____ ТАӘ/Ф.И.О.(бар болса/при наличии)

(қолы/подпись)

Оқу – әдістемелік кеңес отырысында қаралды және мақұлданды/

Рассмотрена и одобрена на заседании учебно-методического совета

Хаттама / Протокол № 1 от "28" 08 2020 г.

Төрғасы / Председатель _____ Дедик Н. Е.

ТАӘ/Ф.И.О. (қолы/подпись)

Explanatory note

The discipline "Professionally-oriented foreign language" (English) is a compulsory general educational discipline, which includes a grammar course, vocabulary material of a professional nature and professional texts.

When studying this discipline, the student will be able to learn how to carry out oral and written communication in a foreign language in the professional field with the leading role of reading.

Prerequisites:

To master this course, the student must have a level of knowledge and skills in the English language in the volume of secondary school programs and the compulsory general education discipline "Foreign language" (English).

Post-requisites:

The knowledge gained can serve as a basis for mastering a more advanced level of a foreign language for special purposes (FLSP) in a magistracy, as well as for further foreign language self-education.

Goals and objectives of the discipline

The purpose of studying the discipline "Professionally-oriented foreign language (English)" is to improve the skills of all forms of professionally-oriented foreign language speech, as well as to develop the communicative and intercultural competence of future specialists in the field of veterinary medicine and sanitation.

Objectives and disciplines: development of communication skills and skills of search, viewing and introductory reading, written language skills for abstracting professionally oriented texts, as well as further improving the skills of foreign language professionally oriented speech.

Authentic texts in the specialty are used as a source of information.

As a result of studying the discipline, students should

know:

- basic techniques for translating terminological combinations;
- features of translation of terms of literature in the specialty;
- types of abbreviations in the language;
- international words;

- features of the translation of free and stable phrases, attributive prepositional phrases;

- features and techniques for translating phrases based on impersonal verb forms, modal verbs and their equivalents, passive constructions;
- the basic grammatical structures of the literary and spoken language.

be able to:

- to understand the main content of authentic texts, highlighting the main idea, omitting secondary information;

- express themselves within the studied professionally-oriented topics, convey the content of the read, express their opinion and assessment

make self-prepared oral reports, presentations on the work done or the topic studied, using sources in the native and target language;

- to react in conversation on professional topics and give arguments;

- compose annotations to texts in the specialty, transfer the content of printed text, highlight basic information, compress the text by extracting basic information;

- translate literature in the specialty from a foreign language into a native language and from a native language into a foreign language in accordance with linguistic norms, using specialized terminological dictionaries;

- to understand the main content of educational and authentic professionally oriented texts within the program material;

- to understand the main content of lectures, speeches, conversations in their **professional field**.

own:

- the skills of expressing their thoughts and opinions in interpersonal, business and professional communication in a foreign language;

- various skills of speech activity (reading, writing, speaking, listening) in a foreign language.

be competent in the use of professional terms in English and in the selection of language means when translating specialized texts with and without the use of dictionaries of various profiles

Контактная информация преподавателя (ей):	
Ф.И.О. Салтовская Ю.П.	тел.: 8 705 665-64-97
	e-mail: tarasyliy@mail.ru

Бағдарламаның мазмұны Содержание программы				Барлығы	оның ішінде в том числе	
Бөлімдер Разделы	Тақырыптар Темы	Оқу нәтижесі Результаты обучения	Бағалау критерийлер Критерии оценок		Теориялық Теоретич.	Зертханалық практикалық Лабораторно практические
III semester						
				34	8	26
Module 1. English is the language of international communication.	1.1. Phonetics of the English language. Introduction to veterinary	1. In the learning process, lexical and grammatical materials are carried out in parallel with the development of oral speech in career guidance and specialize in veterinary medicine.	Grammatical forms from texts, lexical topics. work on the identification, grammatical analysis is the main means of improving the logical thinking of students, repetition of grammar, mastering the level of correct speech.		2	
	1.2. Different classes of animals. Grammar: Passive voice. Peculiarities of translation passive construction				2	
	1.3. Professional vocabulary for veterinary medicine.					4
	1.4. Grammar: Parts of speech. plural nouns'. English adjectives. Tense forms of verbs.		Conducting various written works with the aim of developing students'			2

	(Repetition.)		written language.			
	1.5. Grammar: Parts of speech. plural nouns'. English adjectives. Tense forms of verbs. (Repetition.)				2	2
	1.6. Pet anatomy. Modal verbs.				2	2
	1.7. The cattle. Grammar: Subjunctive. All ways of expressing unreality.	2.The ability to use professional vocabulary in veterinary medicine at the lessons of professional English in practice, in school, during classes.	Able to analyze professional words and create phrases and sentences with him.			2
	1.8. The anatomy of the cattle. Grammar: Communic and Gerundial constructions					2
	1.9. The anatomy of: the swine, the sheep, the horse ,the cow Grammar: Infinitive constructions. (Complex, Object, Complex Subject, For-to-Infinitive Construction					4
	1.10. The anatomy of the cat, the dog. Pronouns.					4
	1.11. What do you know					4

	about dogs? Participle. Control work.					
					4	4
Module-2. Professional terminology.	2.1. Professional terms. Working with a dictionary.	3.The suggestion of professional terms when building a dialogue among themselves should be correct and expanding vocabulary.	Reproduction of vocabulary. Reciprocal interview.			4
				26		26
	3.1. Psoroptes of neat cattle. Tense of the verb.	4. The basics of veterinary medicine should read texts, interpret their contents and translate them.				2
	3.2. Plague of dogs. Category of verbs.					2
	3.3. Salmonellosis Yersiniosis Add.Informational message.		The term is able to correctly use the word.			2
	3.4. Cryptosporidium infection. Brucellosis. Auxiliary verbs.		The term may use specialty words.			2
	3.5. Rabies. Anthrax Phrase.		Able to use lexical and grammatical materials in his specialty.			4
Module-3. Diseases of animals	3.6. Diseases of the sheep. Types of communication words.					2

	and birds	3.7. Animal diseases that threaten man.				2
		3.8. Animal Husbandry Complex sentence.				4
		3.9. Animals as Useful Biomedical Models in Research. Test.				4
		Control work.				2
	Bcero			64	8	56

Пән мазмұны Содержание модуля

Lead

The vocabulary and grammatical materials in the textbook are conducted in parallel with the development of oral speech in vocational guidance and are aimed at developing oral communication skills in

specialty " veterinary science" . developed in accordance with state educational standards.

Grammar analysis of texts, lexical topics is the main means of improving the logical thinking of students, repetition of grammar, mastering the degree of correct speech.

The manual provides tasks related to the written work.

1 module - English language - language of international communication.

Under this module, students become familiar with the history of the emergence of the English language and perform grammatical written works, recalling grammatical rules. And it also increases its interest in learning English.

2 Module-professional terminology. On this topic, students become familiar with vocabulary forms. The term for each specialty defines two dictionaries, through which it can work with vocabulary related to a profession in a text.

3 Module "DISEASES OF ANIMALS AND BIRDS" On this topic, the guys will study some types of diseases, methods of treatment.

The tasks of each module form the ability to put into practice the knowledge learned in the performance of students.

3.Цель и планируемые результаты освоения дисциплины:

Код компетенции	Знания	Умения
<p><i>ОК 01</i> <i>ОК 04</i> <i>ОК 06</i> <i>ОК 10</i></p>	<p>Правила построения простых и сложных предложений на профессиональные темы; основные общеупотребительные глаголы (бытовая и профессиональная лексика); лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности</p>	<p>понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы участвовать в диалогах на знакомые общие и профессиональные темы строить простые высказывания о себе и о своей профессиональной деятельности кратко обосновывать и объяснить свои действия (текущие и планируемые) писать простые связные сообщения на знакомые или интересующие профессиональные темы. правила построения простых и сложных предложений на профессиональные темы</p>

4. УСЛОВИЯ РЕАЛИЗАЦИИ ПРОГРАММЫ УЧЕБНОЙ ДИСЦИПЛИНЫ

Для реализации программы учебной дисциплины должны быть предусмотрены следующие специальные помещения:

Кабинет «Иностранного языка в профессиональной деятельности», оснащенный оборудованием: лекционные места для студентов, стол для преподавателя, оборудованная учебной доской, техническими средствами обучения: компьютер, видеопроектор, экран, телевизор.

Информационное обеспечение реализации программы

Для реализации программы библиотечный фонд образовательной

организации должен иметь печатные и/или электронные образовательные и информационные ресурсы, рекомендуемых для использования в образовательном процессе

5. Печатные издания

Additional educational literature:

1. Маслова Г. В. Английский язык. Пособие для сельскохозяйственных техникумов / Г. В. Маслова. – М. : Высшая школа, 1991.

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8. Использование Интернета.

9. Радио и телекоммуникации.

6. Электронные ресурсы

1. [./www/study.ru](http://www.study.ru) интернет-ресурс с практическими и грамматическими материалами для формирования и совершенствования всех видов речевых умений и навыков

2. [www/multitran.ru](http://www.multitran.ru)- интернет система двуязычных словарей

3. [www.macmillanenglish](http://www.macmillanenglish.com)- интернет-ресурс с практическими материалами для формирования и совершенствования всех видов речевых умений и навыков

4. Электронная библиотечная система юрайт <http://urait.ru/ebs>

5. Электронная библиотечная система знаниум <http://znanium.com/>

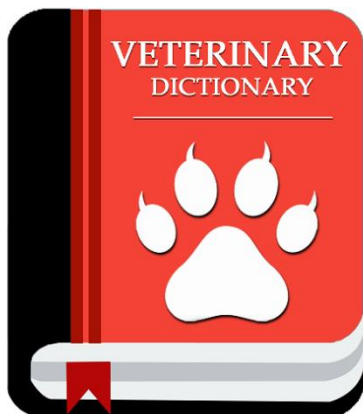
6. Электронная библиотека издательский центр «академия»
<http://www.academia-moscow.ru/elibrary/>

7. Электронный образовательный ресурс Цифровой колледж
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7. КОНТРОЛЬ И ОЦЕНКА РЕЗУЛЬТАТОВ ОСВОЕНИЯ УЧЕБНОЙ ДИСЦИПЛИНЫ

<i>Результаты обучения</i>	<i>Критерии оценки</i>	<i>Формы и методы оценки</i>
<p><u>уметь:</u></p> <ul style="list-style-type: none"> • понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), • понимать тексты на базовые профессиональные темы • участвовать в диалогах на знакомые общие и профессиональные темы • строить простые высказывания о себе и о своей профессиональной деятельности • кратко обосновывать и объяснить свои действия (текущие и планируемые) □ писать простые связные сообщения на знакомые или интересующие профессиональные темы <p>правила построения простых и сложных предложений на профессиональные темы</p> <p><u>знать:</u></p> <ul style="list-style-type: none"> • правила построения простых и сложных предложений на профессиональные темы • основные общеупотребительные глаголы (бытовая и профессиональная лексика) • лексический минимум, 	<p>«Отлично» - теоретическое содержание курса освоено полностью, без пробелов, умения сформированы, все предусмотренные программой учебные задания выполнены, качество их выполнения оценено высоко.</p> <p>«Хорошо» - теоретическое содержание курса освоено полностью, без пробелов, некоторые умения сформированы недостаточно, все предусмотренные программой учебные задания выполнены, некоторые виды заданий выполнены с ошибками.</p> <p>«Удовлетворительно» - теоретическое содержание курса освоено частично, но пробелы не носят существенного характера, необходимые умения работы с освоенным материалом в основном сформированы, большинство предусмотренных программой обучения учебных заданий выполнено, некоторые из выполненных заданий содержат ошибки.</p> <p>«Неудовлетворительно» - теоретическое содержание курса не освоено,</p>	<p>Примеры форм и методов контроля и оценки</p> <ul style="list-style-type: none"> • Компьютерное тестирование на знание терминологии по теме; • Тестирование... • Контрольная работа • Самостоятельная работа. • Защита реферата.... • Семинар • Защита курсовой работы (проекта) • Выполнение проекта; • Наблюдение за выполнением практического задания. (деятельностью студента) • Оценка выполнения практического задания(работы) • Подготовка и выступление с

<p>относящийся к описанию предметов, средств и процессов профессиональной деятельности</p>	<p>необходимые умения не сформированы, выполненные учебные задания содержат грубые ошибки.</p>	<p>докладом, сообщением, презентацией...</p>
<ul style="list-style-type: none"> • особенности произношения • правила чтения текстов профессиональной направленности 		<ul style="list-style-type: none"> • Решение ситуационной задачи....



АНГЛО-РУССКИЙ СЛОВАРЬ ТЕРМИНОВ

Сокращения

a – *adjective* – прилагательное

adv – *adverb* – наречие

n – *noun* – существительное

pl – *plural* – множественное число

v – *verb* – глагол

А

adaptability n – приспособляемость
abundant a-обильный, богатый
acid n-кислота; *fatty -s* жирные кислоты
acid a-кислотный, кислый
additive n-добавка; приправа
adipose a- жирный, жировой;
adult a- взрослый
age v- выдерживать, вызревать
ageing n- выдержка, созревает (сыра, мяса)
agitation n- перемешивание,
aid v- помогать
ash n- зола
assimilate v- поглощать
assist v- помогать
aeration n - аэрация (почвы)
affect v – влиять (на что-либо)
alfalfa n – люцерна
apply v – применять, вносить
attachment n - приспособление
automation n - автоматизация

В

beef n-говядина
belly n- живот
beverage n-питье, напиток
bedding n – подстилка
body n – орган
breeder n – селекционер, животновод
broadcast v – разбрасывать (семена и др.)
bind v -связывать
black pudding кровяная колбаса
bleed v пускать кровь
body n -тело
bone v- снимать мясо с кости
braise v- тушить мясо, предварительно его обжарив
buffalo n буйвол

bulky |а большой

butchering n забой скота;

buttermilk n пахта

С

calf тележка

can v консервировать

canner n крупный рогатый скот низкой кондиции

carbohydrate n углевод

carcass n туша

chitterlings n pl свиные рубцы

choice a-лучший (сорт)

cholesterol n- холестерин

chop отрубленный кусок;

churn n маслобойка (масло)

claming [Пэпц] л сбивише, 1и)пани!(»|асаа)

carbohydrate n - углевод

care n – уход, забота; v заботиться

closely adv – тесно

coarse a – крупный (о семенах)

common a – обычный, распространённый

compaction n- уплотнение

concentrate n- концентрированный корм, концентрат

condition n- состояние, кондиция

control n – борьба, контроль; v бороться, контролировать

cost n – стоимость, себестоимость; pl затраты, издержки

cover v – заделывать(семена)

cowshed n – хлев, коровник

crop n - (с.-х.) культура

crossbreeding n - кросс-бридинг (скрещивание неродственных особей)

cultivation n- выращивание, возделывание; обработка

cutter n – резальная машина

compound n соединение; состав

condiment n приправа

conformation n форма,

consistency n структура;

constituent n составная часть,

contamination n загрязнение, порча,; порча,

corned a соленый; ~ beef солонина

cottage cheese n домашний сыр; творог

counterpart n аналог, эквивалент

cream n сливки; «рем; sour ~ сметана,

cream cheese n- сливочный сыр

cuisine кухня, кулинарное искусство

cull [а бракованный

culture n культура бактерий

cure v консервировать

D

dairy *a* – молочный
depreciation *n*- амортизация, износ
digestible *a* – перевариваемый, усвояемый
digestion *n* - переваривание, усвоение
digger *n* - копалка
draft *a* - тягловый, рабочий (скот)
dual-purpose (cattle) *a*- мясо-молочный скот

E

economics *n* – экономика
economy *n* – экономика, хозяйство
efficiency *n* – эффективность, производительность
electronic *a* – электронный
employment *n*- занятость

F

farming *n* – ведение хозяйства, земледелие
fibre *n* – клетчатка
fibrous *a* - мочковатый (о корне)
fine *a* – мелкокомковатый (о почве), мелкий (о семенах)
firm *a* – уплотнённый, осевший (о почве)
flock *n* – отара

G

gain *v* – прибавлять в весе
germination *n* – прорастание
grass *n* – злак, трава
grower *n* – фермер, колхозник; производитель

H

herbicide *n* – гербицид
high-yielding *a* – высокоурожайный, высокоудойный
inbreeding *n*- инбридинг (родственное спаривание)
indication *n* - показатель
indigestible *a* – непериваримый

I

Insecticide *n* - инсектицид

K

kind *n* - вид

L

laid *n* топленый свиной жир
leanness *n* худоба, истощение
ligament *n* связка
lights *n* легкие
liver печень
lung |п (жат.) легкое
labour-consuming *a* - трудоёмкий

legume *n* – бобовое растение
lifter *n* - подъёмное приспособление
game *n* дичь
grading *n* классификация,
grind [graind] (ground, ground) *v* молотить
grinding *n* измельчение, помол;
ground *a* молотый,

H

half-and-half *n* смесь двух веществ в равных частях
halt *v* останавливать,
ham *n* бедро, ляжка
harden *v* становиться жюри

M

mammal *n* млекопитающее
maintenance *n* – поддержание, сохранение
management *n* – содержание, управление
markedly *adv* заметно
marketing *n* – реализация, сбыт
mellow *a* – рыхлый, спелый
mobility *n* - подвижность, мобильность
mount *v* - навешивать

N

nutrient *n* – питательное вещество; *a* питательный
nutritional *a* – пищевой

O

overfeed *v* - перекармливать

P

photosynthesis *n* - фотосинтез
power *n* – энергия; *v* приводить в движение
practice *n* - приём
production *n* – возделывание, производство
productivity *n* – производительность, продуктивность
profitability *n* – рентабельность, прибыльность
profitable *a* – рентабельный, прибыльный
purebred *a* – чистопородный

R

rainfall *n* – осадки
remove *v* – выносить (питательные вещества из почвы)
roughage *n* – грубый корм

S

seedbed *n* – пашня
self-propelled *a* - самоходный
set *v* – устанавливать, налаживать
sheep-pen *n* – овчарня, загон для овец

sire *n* – производитель (о животных)
soybeans *n* - соя
spread *v* - разбрасывать
stand *n* – всходы, травостой, стеблестой
supplement *n* – добавка

T

tap *a* - стержневой (о корне)
technology *n* – технология
tuber *n* - клубень

U

underfeed *v*- недокармливать
utilization *n* - использование

V

variety *n* – сорт

W

water-*n* шербет, фруктовое мороженое на воде
whey *n* своротка
whip *v* сбивать
whole *a* цельный; - milk цельное молоко
wholesale *a* оптовый

Y

yield *n* – урожай, надой (молока)

Theme: Introduction to veterinary.

Home task: - Read and translate the text. Write out 3-5 sentences to define veterinary medicine. Write in the dictionary and learn words from the text on the topic "veterinary medicine" (10-15 words)

Прочитайте и переведите текст. Выпишите 3-5 предложений для определения понятия «ветеринарии». Выпишите в словарь и выучите слова из текста на тему "Ветеринария" (10-15 слов)

Introduction to veterinary

Veterinary was founded many thousand years ago in relation with man's requirements. The word "veterinarius" is a Latin word. It means taking care of animals and treatment of livestock. The development of veterinary is connected with domestication of wild animals.

Veterinary Science is also called veterinary medicine and includes the prevention, diagnosis, and treatment of the diseases of domestic animals and the management of other animal disorders. The field also deals with those diseases that are intercommunicate between animals and humans. Farm animals are susceptible to various infectious diseases and may suffer from viruses and harmful bacteria, so animals should be examined by veterinary surgeons regularly in order to notice disease symptoms in time and take the necessary preventive and control measures. Such common animal diseases as mastitis, brucellosis, swine fever, anthrax, and leptospirosis can quickly spread and cause major losses among stock animals, so they must be controlled or prevented by veterinary surgeons.

Vaccination and immunization, sanitary measures, and the severe segregation, or quarantine of sick animals should be used by farmers and veterinary surgeons to prevent the spread of infectious diseases such as anthrax, bovine tuberculosis, brucellosis, canine distemper, and rabies. Sanitary control of animal housing and proper pasture management are to eliminate any carriers of animal infectious diseases which can be easily transmitted by water and soil.

The pathologic changes in the body which follow disturbances in various organs or parts of organs disclose facts of great importance to the veterinarians.

Veterinary surgeons also treat parasitical infections, unsanitary conditions which may cause lower fertility in livestock, and nutritional disorders.

A veterinary surgeon's training must include the study of the basic preclinical disciplines of anatomy, histology, physiology, pharmacology, microbiology, bacteriology, virology, parasitology, and pathology. The clinical subjects of study may be divided into internal medicine, preventive medicine, surgery and clinical practice. Internal medicine includes the diagnosis and treatment of diseases as they affect animals. Preventive medicine should consider the aspects of disease prevention and control, especially such diseases that can be transmitted between animals and humans or diseases that may influence human health. Surgery includes wound treatment, fracture repair, the excision of body parts and the use of such techniques as radiology, anesthesiology, obstetrics, treatment of lameness, etc.

Veterinary depends on several disciplines. Knowledge of Physics is essential in understanding the function of the heart and blood vessels, the mechanics of respiration, the formation of images in the eye, and the transmission of sound waves in the ear.

Theme: Different classes of animals.

Home task: List all classes of animals. Translate 2 topics of your choice.

Выпишите все классы животных. Переведите 2 топика по выбору

Animal Classes



No, animal classes are not like the classes people have at school!

An animal class is made up of animals that are all alike in important ways. Scientists have grouped animals into classes to make it easier to study them.

There are many different animal classes and every animal in the world belongs to one of them. The five most well known classes of vertebrates (animals with backbones) are mammals, birds, fish, reptiles, amphibians. They are all part of the phylum chordata -- I remember "**chordata**" by thinking of spinal **chord**.

There are also a lot of animals without backbones. These are called invertebrates and are part of the phylum arthropoda (arthropods). Two of the most commonly known classes in this phylum are arachnids (spiders) and insects.

Mammals

People are mammals. So are dogs, cats, horses, duckbill platypuses, kangaroos, dolphins and whales. What do all these animals have in common, you ask?

The answer is – MILK! If an animal drinks milk when it is a baby and has hair on its body, it belongs to the mammal class.

Birds

Birds are animals that have feathers and that are born out of hard-shelled eggs.

Some people think that what makes an animal a bird is its wings. Bats have wings. Flies have wings. Bats and flies are not birds. So what makes an animal a bird?



The answer is feathers!

All birds have feathers and birds are the only animals that do. The feathers on a bird's wings and tail overlap. Because they overlap, the feathers catch and hold the air. This helps the bird to fly, steer itself and land.

Fish

Fish are vertebrates that live in water and have gills, scales and fins on their body. There are a lot of different fish and many of them look very odd indeed. There are blind fish, fish with noses like elephants, fish that shoot down passing bugs with a stream of water and even fish that crawl onto land and hop about!

Reptiles

Reptiles are a class of animal with scaly skin. They are cold blooded and are born on land.

Snakes, lizards, crocodiles, alligators and turtles all belong to the reptile class.

Amphibians

Amphibians are born in the water. When they are born, they breath with gills like a fish. But when they grow up, they develop lungs and can live on land.

Arthropods

Arthropods is a huge phylum of animals -- it includes eleven animal classes: Merostomata, Pycnogonida, Arachnida, Remipedia, Cephalocarida, Branchiopoda, Maxillopoda, Malacostraca, Chilopoda, Diplopoda, and Insecta.

Any animals that have more than four, jointed legs are arthropods. Insects, spiders and crustaceans all belong to this class of animals.

Theme: Professional vocabulary for veterinary medicine.

Home task: Read and translate the text (orally). Rewrite words into a dictionary and learn. Learn any of the proposed topics, rewrite it in a notebook.

Прочитать и перевести текст (устно). Переписать слова в словарь и выучить. Выучить любой из предложенных топииков, переписать его в тетрадь.

Read and translate the text.

MY PROFESSION

Since olden times the cattle was treated in Russia too. We may find the first records of "*horses' doctors*" in cadasters of XV century in *Novgorod*. In XVII century there were created the stables in *stable department*. The horses of tsar's family and of tsar's attendance were treated there. The edicts were issued during Peter's the First times. The aim of these edicts was the struggle against the *distribution* of the horses' and cows' diseases. The veterinary schools were founded later on. Special veterinary books were published in Russia too.

MY PROFESSION NOWADAYS

Nowadays thousands of veterinary *surgeries* for treating the animals are created in our country and abroad. There exist not only veterinary surgeries but even special hospitals for animals. Vets treat sick *live - stock* in the country - side such as: cows, sheep, pigs, goats, horses, and poultry. Doctors work in live - stock farms and complexes. They watch over *animals' health*, animals' feeding, *inoculate* the animals against *infections*. Vets treat dogs, cats, guinea - pigs, hamsters, birds, fishes and other animals in the cities. We can also find vets in the zoological gardens and circuses. They treat such exotic animals as bears, hippopotamuses, seals, monkeys, parrots, wild geese, snakes, and mice.

Vets must know animals' habits, *diagnose the illnesses*, and give *right prescriptions*. Doctors use precision medical instruments and medicine.

A NEW SPECIALIZATION

A new specialization of veterinary doctor appeared recently. This profession is called *ichthyopathology*. Fishes' diseases are diagnosed with the help of *laboratory analyses*. Fishes are treated with *antibiotics*, *malachite verdure* and other medicine. Specialists *drain a pond* and place sick fish in a large bath, which is filled with medicinal solution. After that the fish are *transferred* to the reservoir with clean water.

2. NEW WORDS AND EXPRESSIONS:

since olden times - издавна	edict - указ
to treat - лечить	distribution - распространение
cadasters - писцовые книги	sick - больной
attendance - окружение	poultry - домашняя птица
to issue - издавать	infection - инфекционная болезнь
surgery - лечебница	hamster - хомяк
live-stock - скот	habits - повадки
inoculate - прививать	to give prescription - назначать лечение
guinea-pig - морская свинка	recently - за последнее время
seal - тюлень	malachite verdure - малахитовая зелень
diagnose - ставить диагноз	solution - раствор
precision - точный	reservoir – водоем
ichthyopathology - ихтиопатология	
to drain a pond - спускать воду из пруда	
to transfer - переводить	
cattle - скот	
record - письменное упоминание	
stable - конюшня	

Theme: Professional vocabulary for veterinary medicine.

Home task: Read and translate the text. Write words in a dictionary and learn. Answer questions about the text in writing.

Прочитать и перевести текст. Записать слова в словарь и выучить. Ответить письменно на вопросы по тексту.

1. Read and translate the text.

Vet is My Profession.

What is the profession of a veterinary like?

There are many interesting and noble professions. A vet is one of them (из них). It is necessary to study a lot (много) to become a good veterinary. This profession requires great patience and responsibility, because it deals with the health of wild and domestic animals. The main aim (цель) is to protect the health of animals, to provide medical prophylactic measures to prevent diseases of animals.

What must the vet know to be a good vet?

He must know: the hygiene of animals; how to feed animals; obstetrics and gynecology; the inner non-infectious diseases of cardiac and vascular system; breath system; digestive system;

diseases of stomach and bowels, liver and peritoneum; the urinary system; the nervous

system; the blood system; the disorder of metabolism; diseases of the young animals.

He must know the pharmacology (medicines), all about the poisoning of animals by different

herbs, food. The vet must know surgery, physical therapy, all the infectious diseases of animals and even the bases of the veterinary radiology.

As you see a vet must be a very clever, skillful and educated specialist. He must study a lot

of special subjects at the lyceum, have a practice to learn his profession practically.

2. Vocabulary: (словарь урока)

noble- благородный **must**- должен

It is necessary-Необходимо (делать что-то)

to know-знать **to require**- требовать

to feed- кормить **patience**-терпение

obstetrics-акушерство

responsibility-ответственность

inner non-infectious-внутренний незаразный

to deal with- иметь дело с

cardiac and vascular-сердечно-сосудистый

wild and domestic-дикие и домашние
breath-дыхательный **main**-главный
digestive-пищеварительный **to protect**-охранять, защищать
stomach-желудок **health**-здоровье
bowels-кишечник **to provide**-проводить
liver and peritoneum-печень и брюшина
measures-мероприятия, меры **urinary**-мочеполовой
to prevent-предотвратить **nervous**-нервный
disease-болезнь **young**- молодой
medicines- лекарства **poisoning**-отравление
herbs and food-травы и пища **surgery**-хирургия **even**-даже
bases-основы **clever**-умный **skillful**- умелый
educated-образованный **subjects**- предметы
to learn-изучать, изучить **practically**-практически

3. What do you know about the profession of a vet?

1. Is the profession of a vet noble?
2. What is it necessary to do to be a good vet?
3. What does this profession require?
4. What does it deal with?
5. What is the main aim of a vet?
6. What must a vet know ?
7. What specialist must a vet be?
8. What must he do to be a good vet?

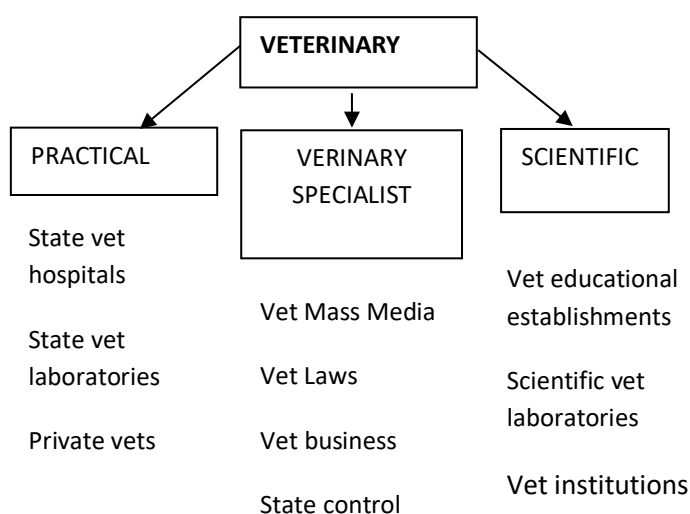
Theme: Commonly accepted lexical standards in veterinary medicine. Classes of words.

Home work: Learn the table, translate the text, write down and learn the words.

Домашнее задание: Выучить таблицу, перевести текст. Записать и выучить слова.

Read and translate the text.

LET'S GENERALIZE THE FACT.



THE CONDITION OF VET SERVICE IN RUSSIA

You can find a veterinary service as a branch of medicine in Russia. "Code of Laws about veterinary" is a leading document. The laws were passed in 1933 in Russia. There are two directions of a veterinary service: **practical and scientific**.

Practical veterinary carries out federal and regional programs of prophylaxes and liquidation of definite illnesses common for people and animals. State vet hospitals and private vets are the main institutions of practical veterinary.

Scientific veterinary it is, first of all, educational establishments that graduate veterinary specialists. Veterinary science creates new medicines, vaccines, disinfectants, veterinary instruments, and equipment. It also works out diagnostics of animals' diseases. Scientific vet laboratories are engaged in elaboration and application of new modern methods of investigations.

Vet Mass Media is improved too. There are a lot of veterinary newspapers and magazines in our country and abroad.

Private vet's business is a new field of veterinary service. Nowadays we can address to private veterinary surgeon and get qualified medical help.

Profession of veterinarian becomes popular and prestige in Russia.

2. READ THE FOLLOWING WORDS AND EXPRESSIONS:

To generalize - обобщать	practical - практический
Mass Media - средства массовой информации	private - частный
Scientific – научный	establishment - заведение
Institution – учреждение	vet service - ветеринарная служба
Branch – ветвь	code of laws - свод правил
Leading – основной	direction - направление
To carry out – осуществлять	definite - определенный
Illness – болезнь	common - общий
To graduate - обучать, готовить	to create - создавать
Vaccines – вакцина	disinfectants - дезинфицирующие средства
Equipment – оборудование	to work out - разрабатывать
Diagnostic – диагностика	disease - болезнь
To be engaged - быть занятым	elaboration - разработка
Application – применение	investigation - исследования
To improve - развивать	

Theme: Commonly accepted lexical standards in veterinary medicine.

Home task:

1. Read and translate the text.
2. Read the following words and expressions
3. Rewrite in a notebook and learn.
4. Read the following words and expressions

1. Прочтите и переведите текст.
2. Прочтите следующие слова и выражения.
3. Перепиши в тетрадь и выучи.
4. Прочтите следующие слова и выражения.

VETERINARY SERVICE ABROAD

There are three forms of organization of veterinary business: state vet service, private vet service, and insurance vet business. The main functions of state vet service abroad are border guarding, vet sanitary inspectors.

Training of specialists proceeded in more than 200 veterinary high educational establishments. 80% of them are situated in Europe and North America. These educational establishments as well as scientific-research institutes work out scientific problems of modern veterinary service. Common and regional questions are associated with preventive inspection and protective measures in the struggle with animals' diseases. Famous world-known scientists Alexander, Nikamura(Japan), Ramon(France), Manninger(Hungary), Neygen(USA), Rerer(German), Raffi(Iran), Garnem(Britain) make a valuable contribution to veterinary service.

There is international organization called World Veterinary Association. Russia joined it in 1928.

International Bureau of Epizootics was founded in 1924. It is executive organ of international service. 84 countries are the members of this organization including Russia. The main tasks of the Bureau are the following:

1. 1 To Encourage and to co-ordinate the research in the sphere of pathology and prophylaxis of animals' diseases.
2. 2 To collect and to disseminate the information deal with animals' diseases and protective measures.
3. 3 To study the projects of vet sanitary inspectors.

Regular sessions are held within the limits of International Bureau of Epizootics. They consider urgent problems of veterinary service. International Veterinary Congress is the general vet world forum.

2. Read the following words and expressions:

Service - служба Insurance - страховое

Business - дело Abroad - за рубежом

Border guarding - охрана границ

Sanitary inspectors - санитарный надзор

To proceed - осуществлять Establishment - учреждение

Scientific-research - научные исследования Common - общий

Regional - региональный To be associated – связанный
Preventive inspection - профилактика
Protective measures - защитные меры
Struggle - борьба Urgent – актуальный
a valuable contribution - ценный вклад
to join – присоединяться epizootic - эпизоотия
executive – исполнительный including - включающий
to encourage – поощрять to co-ordinate - координировать
pathology – патология prophylaxis - профилактика
collaboration – сотрудничество to collect - собирать
to deal with – связанный project - проект
within the limits - в рамках to consider - рассматривать
general - главный

3. Переписать в тетрадь и выучить.

Vet service is a totality of vet organizations and vet institutions of our country and abroad.

Vet hospital is a medical-prophylactic establishment for surgery and stationary treatment of animals. These establishments carry out medical and veterinary prophylactic measures. Vet hospitals render therapeutic, surgical, obstetrical assistance; carry out laboratory-clinical research, planned and urgent preventive vaccinations, vet sanitary measures in the struggle with animals' diseases.

4. Read the following words and expressions:

Totality - совокупность
Institution - учреждение
Vet hospital - ветеринарная лечебница
Medical-prophylactic - лечебно-профилактический
Surgery - амбулаторное лечение
Stationary - стационарный
Treatment – лечение
to render - оказывать
therapeutic - терапевтический
surgical - хирургический
obstetrical - акушерский
assistance - помощь
planned – запланированный
preventive vaccinations – предохранительные прививки

Theme: ANATOMY AND PHYSIOLOGY OF FARM ANIMALS

Home task: Read the text. Translate orally.

Write words to the dictionary.

Answer 5 questions. - Write down the answers in a notebook.

Прочитать текст. Перевести устно.

Записать слова в словарь.

Ответить на 5 вопросов.-записать ответы в тетрадь.

ANATOMY AND PHYSIOLOGY OF FARM ANIMALS

The anatomy and physiology of the horse

The internal anatomy is concerned with the study of the digestive system (the mouth, the esophagus, the stomach, the small intestine, the large intestine: **cecum, colon**), reproductive system (**mare, stallion**; teeth; feet/hooves), skeletal system (**ligaments** and tendons), muscular system, respiratory system and circulatory system.

External anatomy. Back is an area, where the **saddle** goes, begins at the end of the withers, extends to the last thoracic vertebrae.

Barrel is the main body area of the horse, enclosing the **rib** cage and the major internal organs.

Cannon bone is the area between the knee or hock and the fetlock joint, sometimes called the “**shin**” of the horse, though technically it is the **metacarpal**.

Chestnut is a **callosity** on the inside of each leg.

Chin groove is the part of the horse's head behind the lower lip and chin. It is an area where the **curb chain** is fastened.

Coronet or coronary band is the **ring** of soft tissue just above the horny hoof that blends into the skin of the leg.

Crest is the upper portion of the neck where the mane grows.

Croup is the top line of the horse's hindquarters, beginning at the hip, extending proximate to the sacral vertebrae and stopping at the dock of the tail.

Dock is the point where the tail connects to the rear of the horse.

Elbow is the joint of the front leg at the point where the belly of the horse meets the leg.

Ergot is a callosity on the back of the **fetlock**. Fetlock is sometimes called the “ankle” of the horse, though it is not the same skeletal structure as an ankle in humans.

Forearm is the area of the front leg between the knee and elbow. It consists of the **fused radius** and ulna, and all the tissue around these bones. Anatomically it is called the **antebrachium**.

Forelock is the continuation of the mane, which hangs from between the ears down onto the forehead of the horse.

Frog is the highly elastic **wedge-shaped** mass on the underside of the hoof, which normally makes contact with the ground every stride, supports both the locomotion and circulation of the horse.

Girth or heart girth is the area right behind the elbow of the horse, where the girth of the saddle would go, this area should be where the barrel is at its greatest diameter in a properly-conditioned horse that is not pregnant or **obese**.

Hock is the **tarsus** of the horse (hind limb equivalent to the human ankle and heel), the large joint on the hind leg.

Hoof is the foot of the horse. The hoof wall is the tough outside covering of the hoof that comes into contact with the ground. The hoof wall is, in many respects, a much larger and stronger version of the human **finger nail**.

Jugular groove is the line of indentation on the lower portion of the neck can be seen from either side, just above the **windpipe**. Beneath this area run the **jugular vein**, the **carotid artery** and part of the **sympathetic trunk**.

Knee is the **carpus** of the horse, the large joint in the front legs, above the cannon bone.

Loin is the area right behind the saddle, going from the last rib of the horse to the croup. Anatomically it is approximated to the **lumbar spine**.

Mane is a long and relatively **coarse** hair growing from the **dorsal ridge** of the neck, lying on either the left or right side of the neck.

Muzzle consists of the chin, mouth, and nostrils.

Pastern is the connection between the coronet and the fetlock. It is made up of the **middle** and **proximal phalanx**.

Splints are the bones found on each of the legs, on either side of the cannon bone. Partially **vestigial**, these bones support the corresponding **carpal** bones in the **forelimb**, and the corresponding **tarsal** bones in the hindlimb.

Tail consists of both the living part of the tail (which consists of the **coccygeal** vertebrae, muscles, and ligaments), as well as the long hairs which grow from the living part.

Digestive system. Horses are grazing animals, adapted to eating small amounts of the same kind of food all day long. In the wild, the horse adapted to eating prairie grasses in semi-arid regions and traveling significant distances each day in order to obtain adequate nutrition. The digestive system of a horse is about 100 feet (30 m) long, and most of this is intestines.

The mouth. Digestion begins in the mouth, which is also called the “oral cavity”. It is made up of the teeth, the **hard palate**, the soft palate, the tongue and related muscles, the cheeks and the lips. Horses also have three pairs of salivary glands, the **parotid** (largest salivary gland and located near the poll), **submaxillary** (located in the jaw), and **sublingual** (located under the tongue). The front teeth of the horse, called **incisors**, **clip** forage, and food is then pushed back in the mouth by the tongue, and ground up for swallowing by the premolars and molars.

The esophagus. The esophagus is about 4–5 feet in length, and carries food to the stomach. A muscular ring, called the **cardiac sphincter**, connects the stomach to the esophagus. This sphincter is very well developed in horses. This and the **oblique angle** at which the esophagus connects to the stomach explain why

horses cannot vomit. The esophagus is also the area of the digestive tract where horses may suffer from choke.

The stomach. Horses have a relatively small stomach for their size, and this limits the amount of feed a horse can take in at one time. The horse has a stomach with a capacity of only four gallons, and works best when it contains about two gallons. In the stomach, assorted acids and the enzyme pepsin break down food. Pepsin allows for the further breakdown of proteins into amino acid chains. Additionally, the stomach absorbs some water, as well as ions and lipid soluble compounds. The end product is food broken down into **chyme**. It then leaves the stomach through the **pyloric valve**, which controls the flow of food out of stomach.

The small intestine. The horse's small intestine is 50 to 70 feet (21 m) long and holds 10 to 12 gallons. It has three parts, the duodenum, **jejunum and ileum**. The majority of digestion occurs in the duodenum while the majority of absorption occurs in the jejunum. Bile from the liver aids in digesting fats in the duodenum combined with enzymes from the pancreas and small intestine. Horses do not have a gall bladder, so bile flows constantly. Most food is digested and absorbed into the bloodstream from the small intestine, including proteins, simple carbohydrate, fats, and vitamins A, D, and E. Any remaining liquids and roughage move into the large intestine.

The large intestine. The cecum is the first section of the large intestine. It is a **cul-de-sac** pouch, about 4 feet (1.2 m) long that holds 7 to 8 gallons. It contains bacteria that digest cellulose plant fiber through fermentation. These bacteria feed upon digestive chyme, and also produce certain fat-soluble vitamins which are absorbed by the horse. The large **colon**, small colon, and rectum make up the remainder of the large intestine. The large colon is 10–12 feet long and holds up to 20 gallons of semi-liquid matter. It is made up of the right lower (ventral) colon, the left lower (ventral) colon, the left upper (dorsal) colon, the right upper (dorsal) colon, and the **transverse colon**, in that order. Three flexures are also named; the **sternal flexure**, between right and left ventral colon; the **pelvic flexure**, between left dorsal and left ventral colon; the **diaphragmatic flexure**, between left dorsal and right dorsal colon. The main purpose of the large colon is to absorb carbohydrates, which were broken down from cellulose in the cecum. Due to its many twists and turns, it is a common place for a type of horse colic called **an impaction**. The small colon is 10–12 feet in length and holds only 5 gallons of material. It is the area where the majority of water in the horse's diet is absorbed, and is the place where **fecal** balls are formed. The rectum is about one foot long, and acts as a holding chamber for waste matter, which is then expelled from the body via the **anus**.

Reproductive system. The reproductive system of the mare is responsible for controlling gestation, birth, lactation, and mating behavior of the mare. It lies ventral to the 4th or 5th lumbar vertebrae, although its position within the mare can vary depending on the movement of the intestines and distention of the bladder. The mare has two ovaries, usually 7–8 cm in length and 3–4 cm thick that generally tend to decrease in size as the mare ages. The ovaries connect to the

fallopian tubes (oviducts), which serve to move **the ovum** from the ovary to the **uterus**. To do so, the oviducts are lined with a layer of **cilia**, which produce a current that flows toward the uterus. Each oviduct attaches to one of the two horns of the uterus, which are approximately 20–25 cm in length. These horns attach to the body of the uterus (18–20 cm long). Caudal to the uterus is the cervix, about 5–7 cm long, which enters the **vagina**. Usually 3.5–4 cm in diameter, it can expand to allow the passage of the **foal**. The vagina of the mare is 15–20 cm long, and is quite elastic, allowing it to expand. The vulva is the external opening of the vagina, and consists of the **clitoris** and two **labia**. It lies ventral to the rectum. The mare has two **mammary glands**, which are smaller in **virgin** mares. They have two **ducts** each, which open externally. The reproductive system of the **stallion** is responsible for the sexual behavior and secondary sex characteristics (such as a large crest) of the stallion. The external **genitalia** comprise: the testes, which are suspended horizontally within the **scrotum**. The **testis** of an average stallion is **ovoid** from 8 to 12 cm long; the penis, within the **prepuce**, also known as the “**sheath**”. When not erect, the penis is housed within the prepuce, 50 cm long and 2.5 to 6 cm in diameter with the distal end 15 to 20 cm. When erect, the penis doubles in length and thickness and the glands increase by 3 to 4 times. The urethra opens within the **urethral fossa**, a small pouch at the distal end of the glands, the testes, which are suspended horizontally within the scrotum. The internal genitalia comprise the accessory sex glands: **vesicular glands**; **prostate gland**; and **bulbourethral glands**. These contribute fluid to the semen at **ejaculation**, but are not strictly necessary for fertility.

Teeth. A horse's teeth include incisors, premolars, molars, and sometimes canine teeth. A horse's incisors, premolars, and molars, once fully developed, continue to erupt throughout its lifetime as the grinding surface is worn down through chewing.

Hoof. The hoof of the horse encases the second and third phalanx of the lower limbs, analogous to the fingertip or toe tip of a human. In essence, a horse travels on its “**tiptoes**”. The hoof wall is a much larger, thicker and stronger version of the human fingernail or toenail, made up of similar materials, primarily keratin, and a very strong protein molecule. The horse's hoof contains a high proportion of sulfur-containing amino acids which contribute to its resilience and toughness.

Skeletal system. The skeleton of the horse has three major functions in the body. It protects vital organs, provides **framework**, and supports soft parts of the body. Horses have 205 bones, which are divided into the **appendicular** skeleton (the legs) and the **axial skeleton** (the skull, vertebral column, sternum, and ribs). Both pelvic and thoracic limbs contain the same number of bones, 20 bones per limb. Bones are connected to muscles via tendons and other bones via ligaments. Bones are also used to store minerals, and are the site of red blood cell formation.

Ligaments. Ligaments attach bone to bone or bone to tendon, and are vital in stabilizing joints as well as supporting structures. They are made up of **fibrous** material that is generally quite strong. Due to their relatively poor blood supply, ligament injuries generally take a long time **to heal**.

Tendons. Tendons are **chords** of connective tissue attaching muscle to bone, **cartilage** or other tendons. They are necessary for support of the horse's body, and translate the force generated by muscles into movement. Tendons are classified as **flexors** or **extensors**. As tendons pass near bony prominences, they are protected by a fluid filled **synovial** structure, either a tendon sheath or a sac called a **bursa**.

Tendinitis is most commonly seen in high performance horses that gallop or jump. When a tendon is damaged the **healing** process is slow because tendons have a poor blood supply, reducing the availability of nutrients and oxygen to the tendon. Scar tissue within the tendon decreases the overall elasticity in the damaged section of the tendon as well, causing an increase in strain on **adjacent** uninjured tissue.

Muscular system. Muscles are commonly arranged in pairs so that they oppose each other, with one flexing the joint (a flexor muscle) and the other extending it (extensor muscle). A muscle is made up of several muscle bundles, which in turn are made up of muscle fibers. Muscle fibers have **myofibrils**, which are able to contract due **to actin and myosin**.

Respiratory system. The horse's respiratory system consists of the nostrils, pharynx, larynx, trachea, diaphragm, and lungs. Additionally, the **nasolacrimal duct** and **sinuses** are connected to the nasal passage. The horse's respiratory system not only allows the animal to breathe, but also is important in the horse's sense of smell (**olfactory** ability) as well as in communicating.

Circulatory system. The horse's circulatory system includes the fourchambered heart, as well as the blood and blood vessels. Its main purpose is to circulate blood throughout the body to deliver oxygen and nutrients to tissues, and to remove waste from these tissues.

Eyes. The horse has the largest eye of all land mammals, and is designed to help the horse as a prey animal. It provides the horse with a wide field of **monocular vision**, as well as good visual acuity and some ability to see color. Because the horse's vision is closely tied to his behavior, the horse's visual abilities are often taken into account when handling and training the animal.

Hearing. The **pinna** of a horse's ears can rotate in any direction to pick up sounds. The hearing of horses is good, superior to that of humans, and the pinna of each ear can rotate up to 180°, giving the potential for 360° hearing without having to move the head. Often, the eye of the horse is looking in the same direction as the ear is directed.(from Wikipedia, the free encyclopedia. Anatomical Nomenclature in the book “Nomina Anatomica Veterinaria”)

Vocabulary

cecum ['si:kəm] слепая кишка

colon ['kəʊlən] ободочная кишка

mare [mɛə] кобыла

stallion ['stæljən] жеребец

ligament ['ligəmənt] связка

saddle [sædl] седло

barrel ['bærəl] брюхо
rib [rib] ребро
cannon bone ['kænən] берцовая кость
shin [ʃin] голень
metacarpal [ˈmetəˈkɑ:pəl] пястный, пястная кость
chestnut [ˈtʃestnʌt] бабка (у лошади), гнедая лошадь
callosity [kæˈlɒsiti] затвердение (на коже), мозоль
chin [tʃin] подбородок
groove [gru:v] бороздка, желобок, углубление
curb [kə:b] подгубный ремень, цепка (уздечки), узда
chain [tʃeɪn] цепь, цепочка
coronet ['kɒrənɪt] нижняя часть бабки (у лошади), волосень
coronary ['kɒrənəri] коронарный
band [bænd] фиксатор, тяж (диск)
ring [rɪŋ] кольцо
crest [krest] гребень
croup [kru:p] круп
dock [dɒk] репица (хвоста животного), обрубленный хвост
elbow ['elbəʊ] локоть
ergot ['ə:gət] спорынья
fetlock ['fetlɒk] щетка (волосы за копытом у лошади)
forearm ['fɔ:rɔ:m] предплечье
fused radius [fju:zd 'reɪdjəs] лучевая кость
antebrachium [ˈæntɪˈbreɪkiəm] предплечье
forelock ['fɔ:lɒk] прядь волос на лбу
frog [frɒɡ] стрелка (в копыте лошади)
wedge-shaped [ˈwedʒɪˈeɪpt] имеющий форму клина
girth [gɜ:θ] подпруга, подтягивать подпругу
obese [əuˈbi:s] тучный, страдающий ожирением
hock [hɒk] коленное сухожилие
tarsus ['tɑ:səs] предплюсна
hoof [hu:f] копыто
fingernail [ˈfɪŋəneɪl] ноготь
windpipe [ˈwɪndpaɪp] дыхательное горло
jugular vein [ˈdʒʌgjʊlə veɪn] яремная вена
carotid artery [kəˈrɒtɪd ˈɑ:təri] сонная артерия
sympathetic trunk [ˈsɪmpəˈθetɪk trʌŋk] симпатический ствол
carpus [ˈkɑ:pəs] запястье
loin [ˈlɔɪn] поясница
lumbar [ˈlʌmbə] поясничный
spine [ˈspɪn] позвоночный столб
mane [meɪn] грива
coarse [kɔ:s] грубый
dorsal [ˈdɔ:səl] дорсальный, спинной дорсальный, спинной
ridge [rɪdʒ] гребень, выступ

muzzle [mʌzl] морда
pastern ['pæstə:n] бабка (у лошади)
middle [midl] средний
proximal ['prɒksiməl] проксимальный
phalanx ['fælæŋks] фаланга
splint [splint] шина
vestigial [ves'tidziəl] рудиментарный
carpal ['ka:pəl] запястный
forelimb ['fɔ:lɪmb] передняя конечность
tarsal ['ta:səl] предплюсневой
coccygeal [kɒk'sidziəl] копчиковый
hard palate [ha:d'pælit] твердое небо
parotid [pə'rɒtid] околоушной
submaxillary ['sʌbmæks'ɪləri] субмаксиллярный
sublingual ['sʌb'liŋgwəl] подъязычный
incisor [in'saɪzə] резец, передний зуб
to clip [klɪp] отсекать, обрывать
cardiac sphincter ['ka:diæk 'sfɪŋktə] кардиальный сфинктер
oblique angle [ə'bli:k æŋɡl] косой угол
chyme [kaɪm] химус, пищевая кашица
pyloric valve [pi'lɔrɪk vælv] пилорический клапан
jejunum [dʒi'dʒu:nəm] тощая кишка
ileum ['iliəm] подвздошная кишка
cul-de-sac ['kuldə'sæk] слепой мешок
transverse colon ['trænzvɜ:s 'kəʊlə] поперечная, ободочная кишка
Sternal ['stɜ:nəl] стерильный
flexure ['flekʃə] изгиб
pelvic ['pelvɪk] тазовый
dorsal ['dɔ:səl] дорсальный
colon ['kəʊlən] ободочная кишка
ventral ['ventrəl] брюшной
diaphragmatic flexure [ˈdaɪəfræg'mætɪk 'flekʃə] диафрагмальный изгиб
impaction [ɪm'pækʃən] закупорка
fecal ['fi:kəl] каловый, фекальный
anus ['eɪnəs] задний проход, анус
Fallopian tubes [fə'lɔpiən 'tju:bz] фаллопиевы трубы
oviduct [əʊvidʌkt] яйцевод
ovum [əʊvəm] яйцеклетка зрелая
uterus ['ju:tərəs] матка
cilia ['siliə] ресница, ресничка
vagina [və'dʒaɪnə] влагалище
foal [fəʊl] жеребенок, жеребиться
clitoris ['klɪtərɪs] клитор
labium, pl. labia ['ləɪbiəm], ['leɪbiə] губа
mammary gland ['mæməri glænd] молочная железа

virgin ['və: dʒɪn] девственник, девственница
duct [dʌkt] проток
stallion [stæljən] жеребец
genitalia [ˈdʒeniˈteɪliə] гениталии, половые органы
scrotum ['skrɒtəm] мошонка
testis [ˈtestɪs] семенник
ovoid ['əʊvɔɪd] яйцевидный, яйцеобразный
prepuce [ˈpri:pju:s] крайняя плоть
sheath [ʃi:θ] оболочка
gland [glænd] железа
urethral fossa [juəˈri:θrəl ˈfɒsə] уретральная ямка
vesicular [viˈsɪkjʊlə] везикулярный
prostate gland [ˈprɒsteɪt glænd] предстательная железа
bulbourethral [ˈbʌlbʊɹjuəˈri:θrəl] бульбоуретральный
ejaculation [ɪdʒekjuˈleɪʃn] эякуляция
hoof [hu:f] копыто
framework [ˈfreɪmwɜ:k] зубной мост, зубной протез
appendicular [ˈæpənˈdɪkjʊlə] аппендикулярный, относящийся к червеобразному отростку
axial skeleton [ˈæksɪəl ˈskelɪtn] осевой скелет
fibrous [ˈfaɪbrəs] волокнистый
to heal [hi:l] излечивать, способствовать заживлению
chord [kɔ:d] хорда
cartilage [ˈkɑ:t(ə)lɪdʒ] хрящ
flexor [ˈfleksə] флексор, мышца-сгибатель
extensor [ɪksˈtensə] разгибатель, мышца-экстензор
fibroblast [ˈfaɪbrəʊˈblæst] фибропластическая ткань
synovial [siˈnɒviəl] синовиальный
bursa [ˈbɜ:sə] сумка
tendonitis [ˈtendənɪtɪs] тендинит
healing [ˈhi:lɪŋ] заживление
adjacent [əˈdʒeɪsənt] соседний, примыкающий
myofibril [maɪəʊˈfɪbrɪl] миофибрилла
actin [ˈæktɪn] актин
myosin [maɪəʊzɪn] миозин
nasolacrimal duct [ˈneɪzəʊˈlækɪməl] носослезный проток
olfactory [ɒlˈfæktəri] обонятельный
monocular vision [mɒˈnɒkjʊlə vɪʒən] монокулярное зрение
pinna, pl. pinnae [ˈpɪnə], [ˈpɪni:] наружное ухо

Упражнение 1. Ответьте на вопросы.

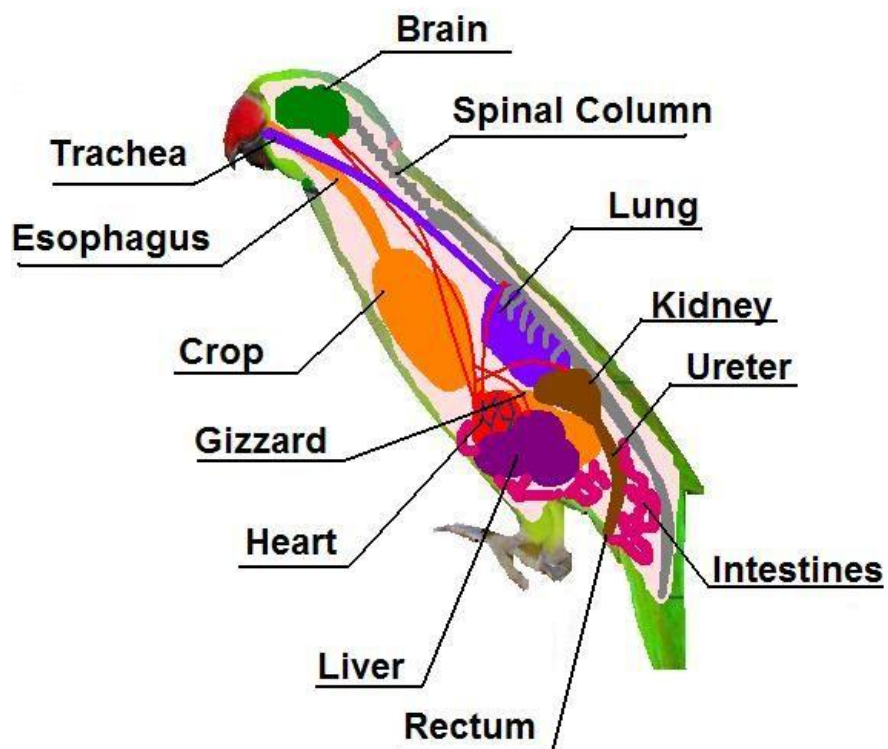
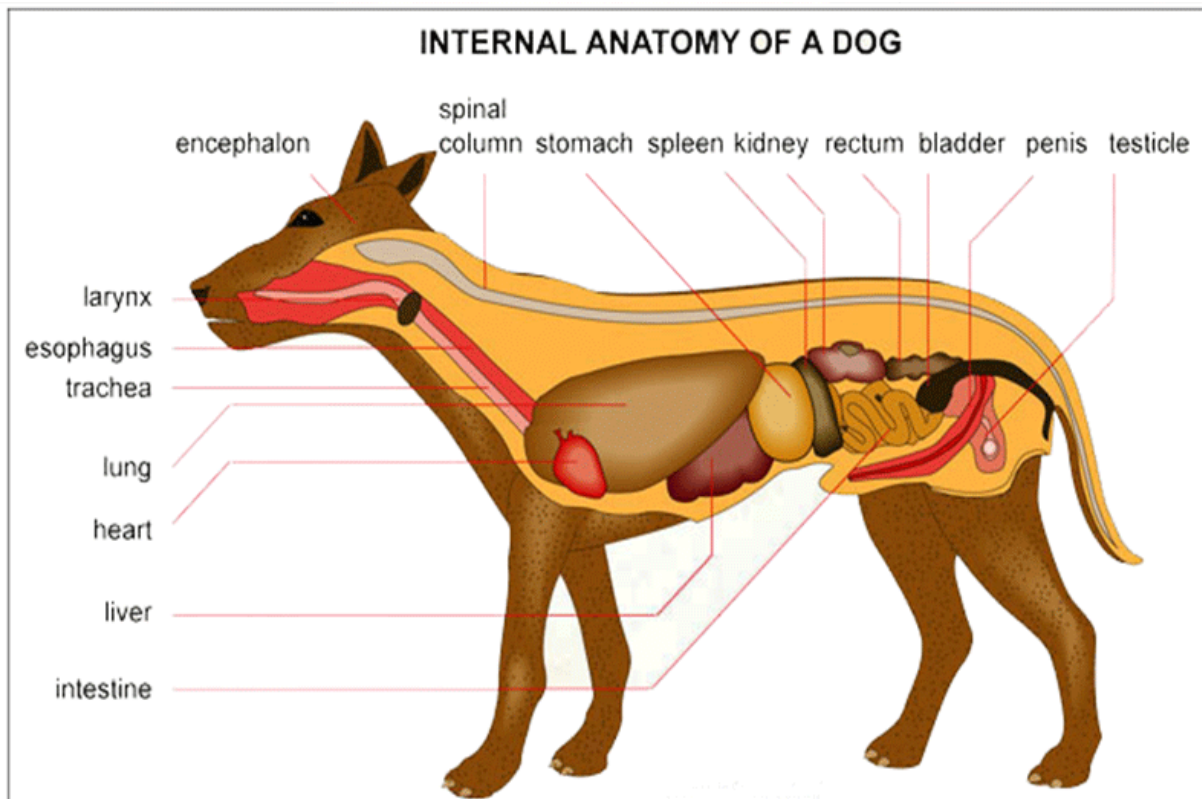
1. What are the main systems of internal anatomy?
2. How many bones of the horse body do you know? What are their functions?
3. What are the types of the teeth?
4. How many teeth has the horse got?

5. What does the digestive system look like?
6. What organs of the mouth does the horse have?
7. What can you tell about the circulatory system?
8. What organs does the horse's respiratory system consist of?
9. What muscles do you know? What are their functions?
10. How are bones connected to muscles?
11. What is the skeleton composed of?
12. What structure does the genital system of the horse have?
13. What structure and attitude does the uterus of mare have?
14. What structure and attitude do the genital organs have?
15. What is the food? What substances does the hoof contain?

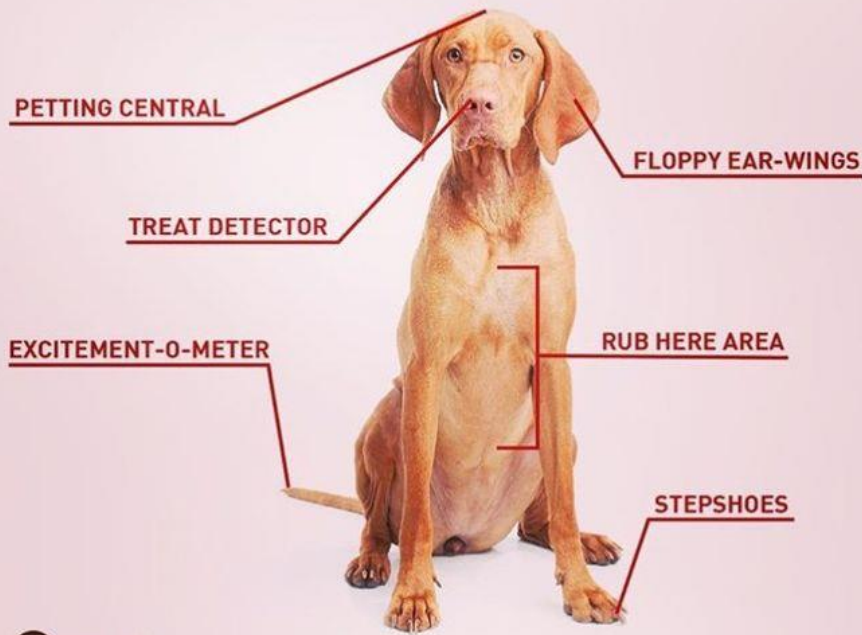
Theme: Pet anatomy.

Home task: Write out words according to the proposed auxiliary cards and translate. Learn new vocabulary.

Выписать слова по предложенным вспомогательным картам и перевести. Выучить новую лексику.



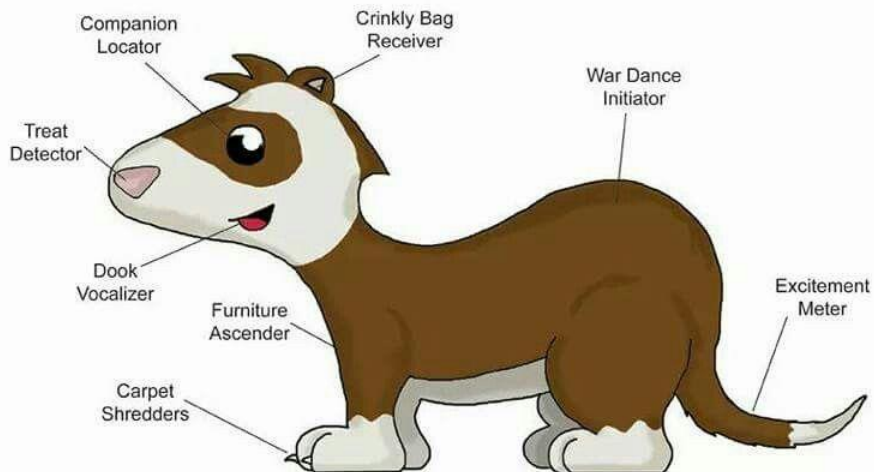
The **ANATOMY** of my VIZSLA



FERRET ANATOMY

Kingdom: Animalia
Phylum: Chordata
Class: Mammalia

Order: Carnivora
Family: Mustelidae
Genus: Mustela

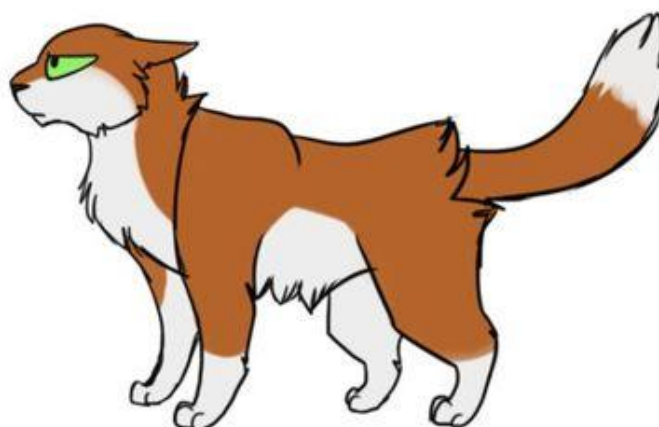


Pet Peeves of Warriors: Kit Anatomy

Often times while browsing DeviantArt and YouTube, I see many artists make the same mistake. They draw kits like minaturized copies of adult cats. In the real world, since when do you see a mama cat with tiny, adult proportioned kittens with her? That's right, never. Below are the common features of a correctly proportioned kitten; and the other without the correct proportions.



- large head
- big eyes
- stubby legs and tail
- tiny fangs/claws
- overall rounded features



- legs and tail WAY too long
- sharper features
- adult face/ body, just small

Giving your character large eyes does **NOT** make them automatically well-proportioned!

@prophecywings

Theme: The cattle.

Home task: Read the text. Make a short summary of the lecture topic. Write out new words in professional vocabulary and learn.

Прочитать текст. Сделать краткий конспект по теме лекции. Выписать новые слова по профессиональной лексике и выучить.

Cattle anatomy

Cattle are raised as livestock for meat (beef and veal), as dairy animals for milk and other dairy products, and as draft animals (pulling carts, plows, etc.). Other products include leather and manure for fertilizer or fuel. In some countries, such as India, cattle are sacred. It is believed that there are 1.3 billion livestock in the modern world.

Cattle have one stomach with four compartments. They are scar, re-ticulum, booklet, and abomasum, with the scar being the largest compartment-ment. The reticulum, the smallest compartment, is known as "honeycomb". Cattle sometimes consume metal objects that are deposited in the reticulum and irrigation from metal objects that cause hardware disease. The main function of the booklet is to absorb water and nutrients from the digestible feed. The book is known as "many layers." The abomasum is like the human stomach, which is why it is known as the "true stomach".

Cattle cattle. They have a digestive system that allows otherwise indigestible foods to be used repeatedly by reverse direction and rechewing them like "chewing gum". The gum is then reswallowed and further digested by a specialized microor-ganismus in the rumen. These microorganisms are primarily responsible for the degradation of cellulose and other carbohydrates into volatile fatty acids, which are used by cattle as their main metabolic fuel. Microbes within the rumen are also able to synthesize amino acids from non-protein nitrogenous sources such as urea and ammonia. As these microbes multiply in the rumen, older generations die and their carcasses continue through the digestive tract. These carcasses are then partially digested by livestock, allowing them to obtain a high quality protein source. These features allow livestock to thrive on grasses and other vegetation. The gestation period for a cow is nine months. A newborn calf weighs 25-45 kg (55 to 99 lb). Breeding cattle usually live for about 15 years (sometimes as much as 25 years).

Theme: The anatomy and physiology of the cattle

Home task: Read and translate the text. Record and learn new professional vocabulary. Do exercises 1 and 2.

Прочитайте и переведите текст. Запишите и выучите новую профессиональную лексику. Выполните упражнение 1 и 2.

Cattle are raised as livestock for meat (beef and veal), as dairy animals for milk and other dairy products, and as draft animals (pulling carts, plows and the like). Other products include leather and dung for manure or fuel. In some countries such, as India, cattle are sacred. It is estimated that there are 1.3 billion cattle in the world today.

Cattle have one **stomach** with four **compartments**. They are **rumen, reticulum, omasum, and abomasum**, with the rumen being the largest compartment. The reticulum, the smallest compartment, is known as the “honey comb”. Cattle sometimes consume metal objects which are deposited in the reticulum and irritation from the metal objects causing **hardware** disease. The omasum’s main function is to absorb water and nutrients from the **digestible** feed. The omasum is known as the “many plies”. The abomasum is like the human stomach; this is why it is known as the “true stomach”.

Cattle are **ruminants**. They have a **digestive** system that allows use of otherwise indigestible foods by repeatedly regurgitating and rechewing them as “cud”. The cud is then reswallowed and further digested by specialized microorganism in the rumen. These microbes are primarily responsible for decomposing cellulose and other **carbohydrates** into volatile fatty acids that cattle use as their primary metabolic fuel. The microbes inside the rumen are also able to synthesize amino acids from nonprotein **nitrogenous** sources, such as **urea** and **ammonia**. As these microbes reproduce in the rumen, older generations die and their **carcasses** continue on through the digestive tract. These carcasses are then partially digested by the cattle, allowing them to gain a high quality protein source. These features allow cattle to thrive on grasses and other vegetation. The **gestation** period for a cow is nine months. A newborn calf weighs 25–45 kg (55 to 99 lb). Breeding **stock** usually lives to about 15 years (occasionally as much as 25 years). (from Wikipedia, the free encyclopedia)

Vocabulary

cattle pl. ['kætl] крупный рогатый скот

stomach ['stʌmək] желудок

compartment [kəm'pɑ:pmənt] отдел, отделение

rumen ['ru:men] рубец, первый отдел преджелудка

reticulum [ri'tikjuləm] сетка, второй отдел преджелудка

omasum [ɒ'meiʃəm] книжка, третий отдел преджелудка

abomasum [æbɒ'meiʃəm] сычуг, четвертый отдел преджелудка

hardware ['hɑ:dwɛə] металлические изделия

digestible [dai'dʒestəbl] легко усваиваемый

ruminant ['ru:minənt] жвачный, жвачное животное
digestive [dai'dzestiv] пищеварительный
carbo-hydrate ['ka:bəu'haidreit] углевод
nitrogenous [nai'trɒdʒinəs] азотный, азотистый
urea ['ju:əriə] мочеви́на
ammonia ['əmɒnjə] аммиак
carcass ['ka:kəs] туша, тело
gestation [dʒes'teiʃn] беременность
stock [stɒk] порода племя

Упражнение 1. Ответьте на вопросы.

1. What are cattle raised for?
2. What organs form the digestive system?
3. What are the functions of the organs of digestion?
4. Are cattle ruminants?
5. How many years does breeding stock live?

Упражнение 2. Переведите предложения с русского языка на английский язык.

1. На передней поверхности головы любое домашнее животное имеет лобную, лицевую и носовую области.
2. На боковой поверхности домашнее животное имеет височную, ушную, глазную, щечную области и область околоушной железы.
3. Лицевой отдел формирует две полости: носовую и ротовую.
4. В ротовую полость входит комплекс органов: губы, щеки, язык, десны, твердое и мягкое небо.
5. К пищеварительной системе относятся полость рта, глотка, пищевод, желудок, тонкая кишка с печенью и поджелудочной железой и толстая кишка.
6. Ротовая полость состоит из губ, языка, твердого и мягкого неба.
7. В брюшной полости расположены пищевод, желудок, тонкий кишечник, печень и поджелудочная железа. Тонкий кишечник состоит из трех отрезков: двенадцатиперстной, тощей и подвздошной кишок. В составе толстого кишечника также есть три отрезка – слепая, ободочная и прямая кишки.
8. Органы дыхания состоят из носовой полости, глотки, гортани, трахеи, бронхиального дерева, легких. Органы респираторной (дыхательной) моторики состоят из грудной клетка с мышечным аппаратом и диафрагмой.
9. Основной орган дыхания – легкие (правое и левое).
10. Нервную систему подразделяют на центральную и периферическую.

Theme: The anatomy of: the swine, the sheep, the horse, the cow.

Home task:

Read and translate texts (orally). Write down and learn professional vocabulary.

Прочитать и перевести тексты (устно). Записать и выучить профессиональную лексику.

The anatomy and physiology of the horse

The internal anatomy is concerned with the study of the digestive system (the mouth, the esophagus, the stomach, the small intestine, the large intestine: **cecum, colon**), reproductive system (**mare, stallion**; teeth; feet/hoves), skeletal system (**ligaments** and tendons), muscular system, respiratory system and circulatory system.

External anatomy. Back is an area, where the **saddle** goes, begins at the end of the withers, extends to the last thoracic vertebrae.

Barrel is the main body area of the horse, enclosing the **rib** cage and the major internal organs.

Cannon bone is the area between the knee or hock and the fetlock joint, sometimes called the “**shin**” of the horse, though technically it is the **metacarpal**.

Chestnut is a **callosity** on the inside of each leg.

Chin groove is the part of the horse's head behind the lower lip and chin. It is an area where the **curb chain** is fastened.

Coronet or coronary band is the **ring** of soft tissue just above the horny hoof that blends into the skin of the leg.

Crest is the upper portion of the neck where the mane grows.

Croup is the top line of the horse's hindquarters, beginning at the hip, extending proximate to the sacral vertebrae and stopping at the dock of the tail.

Dock is the point where the tail connects to the rear of the horse.

Elbow is the joint of the front leg at the point where the belly of the horse meets the leg.

Ergot is a callosity on the back of the **fetlock**. Fetlock is sometimes called the “ankle” of the horse, though it is not the same skeletal structure as an ankle in humans.

Forearm is the area of the front leg between the knee and elbow. It consists of the **fused radius** and ulna, and all the tissue around these bones. Anatomically it is called the **antebrachium**.

Forelock is the continuation of the mane, which hangs from between the ears down onto the forehead of the horse.

Frog is the highly elastic **wedge-shaped** mass on the underside of the hoof, which normally makes contact with the ground every stride, supports both the locomotion and circulation of the horse.

Girth or heart girth is the area right behind the elbow of the horse, where the girth of the saddle would go, this area should be where the barrel is at its greatest diameter in a properly-conditioned horse that is not pregnant or **obese**.

Hock is the **tarsus** of the horse (hind limb equivalent to the human ankle and heel), the large joint on the hind leg.

Hoof is the foot of the horse. The hoof wall is the tough outside covering of the hoof that comes into contact with the ground. The hoof wall is, in many respects, a much larger and stronger version of the human **fingernail**.

Jugular groove is the line of indentation on the lower portion of the neck can be seen from either side, just above the **windpipe**. Beneath this area run the **jugular vein**, the **carotid artery** and part of the **sympathetic trunk**.

Knee is the **carpus** of the horse, the large joint in the front legs, above the cannon bone.

Loin is the area right behind the saddle, going from the last rib of the horse to the croup. Anatomically it is approximated to the **lumbar spine**.

Mane is a long and relatively **coarse** hair growing from the **dorsal ridge** of the neck, lying on either the left or right side of the neck.

Muzzle consists of the chin, mouth, and nostrils.

Pastern is the connection between the coronet and the fetlock. It is made up of the **middle** and **proximal phalanx**.

Splints are the bones found on each of the legs, on either side of the cannon bone. Partially **vestigial**, these bones support the corresponding **carpal** bones in the **forelimb**, and the corresponding **tarsal** bones in the hindlimb.

Tail consists of both the living part of the tail (which consists of the **coccygeal** vertebrae, muscles, and ligaments), as well as the long hairs which grow from the living part.

Digestive system. Horses are grazing animals, adapted to eating small amounts of the same kind of food all day long. In the wild, the horse adapted to eating prairie grasses in semi-arid regions and traveling significant distances each day in order to obtain adequate nutrition. The digestive system of a horse is about 100 feet (30 m) long, and most of this is intestines.

The mouth. Digestion begins in the mouth, which is also called the “oral cavity”. It is made up of the teeth, the **hard palate**, the soft palate, the tongue and related muscles, the cheeks and the lips. Horses also have three pairs of salivary glands, the **parotid** (largest salivary gland and located near the poll), **submaxillary** (located in the jaw), and **sublingual** (located under the tongue). The front teeth of the horse, called **incisors**, **clip** forage, and food is then pushed back in the mouth by the tongue, and ground up for swallowing by the premolars and molars.

The esophagus. The esophagus is about 4–5 feet in length, and carries food to the stomach. A muscular ring, called the **cardiac sphincter**, connects the stomach to the esophagus. This sphincter is very well developed in horses. This and the **oblique angle** at which the esophagus connects to the stomach explain why horses cannot vomit. The esophagus is also the area of the digestive tract where horses may suffer from choke.

The stomach. Horses have a relatively small stomach for their size, and this limits the amount of feed a horse can take in at one time. The horse has a stomach with a capacity of only four gallons, and works best when it contains about two gallons. In the stomach, assorted acids and the enzyme pepsin break down food.

Pepsin allows for the further breakdown of proteins into amino acid chains. Additionally, the stomach absorbs some water, as well as ions and lipid soluble compounds. The end product is food broken down into **chyme**. It then leaves the stomach through the **pyloric valve**, which controls the flow of food out of stomach.

The small intestine. The horse's small intestine is 50 to 70 feet (21 m) long and holds 10 to 12 gallons. It has three parts, the duodenum, **jejunum and ileum**. The majority of digestion occurs in the duodenum while the majority of absorption occurs in the jejunum. Bile from the liver aids in digesting fats in the duodenum combined with enzymes from the pancreas and small intestine. Horses do not have a gall bladder, so bile flows constantly. Most food is digested and absorbed into the bloodstream from the small intestine, including proteins, simple carbohydrate, fats, and vitamins A, D, and E. Any remaining liquids and roughage move into the large intestine.

The large intestine. The cecum is the first section of the large intestine. It is a **cul-de-sac** pouch, about 4 feet (1.2 m) long that holds 7 to 8 gallons. It contains bacteria that digest cellulose plant fiber through fermentation. These bacteria feed upon digestive chyme, and also produce certain fat-soluble vitamins which are absorbed by the horse. The large **colon**, small colon, and rectum make up the remainder of the large intestine. The large colon is 10–12 feet long and holds up to 20 gallons of semi-liquid matter. It is made up of the right lower (ventral) colon, the left lower (ventral) colon, the left upper (dorsal) colon, the right upper (dorsal) colon, and the **transverse colon**, in that order. Three flexures are also named; the **sternal flexure**, between right and left ventral colon; the **pelvic flexure**, between left **dorsal** and left **ventral colon**; the **diaphragmatic flexure**, between left dorsal and right dorsal colon. The main purpose of the large colon is to absorb carbohydrates, which were broken down from cellulose in the cecum. Due to its many twists and turns, it is a common place for a type of horse colic called **an impaction**. The small colon is 10–12 feet in length and holds only 5 gallons of material. It is the area where the majority of water in the horse's diet is absorbed, and is the place where **fecal** balls are formed. The rectum is about one foot long, and acts as a holding chamber for waste matter, which is then expelled from the body via the **anus**.

Reproductive system. The reproductive system of the mare is responsible for controlling gestation, birth, lactation, and mating behavior of the mare. It lies ventral to the 4th or 5th lumbar vertebrae, although its position within the mare can vary depending on the movement of the intestines and distention of the bladder. The mare has two ovaries, usually 7–8 cm in length and 3–4 cm thick that generally tend to decrease in size as the mare ages. The ovaries connect to the **fallopian tubes (oviducts)**, which serve to move **the ovum** from the ovary to the **uterus**. To do so, the oviducts are lined with a layer of **cilia**, which produce a current that flows toward the uterus. Each oviduct attaches to one of the two horns of the uterus, which are approximately 20–25 cm in length. These horns attach to the body of the uterus (18–20 cm long). Caudal to the uterus is the cervix, about 5–7 cm long, which enters the **vagina**. Usually 3.5–4 cm in diameter, it can expand to

allow the passage of the **foal**. The vagina of the mare is 15–20 cm long, and is quite elastic, allowing it to expand. The vulva is the external opening of the vagina, and consists of the **clitoris** and two **labia**. It lies ventral to the rectum. The mare has two **mammary glands**, which are smaller in **virgin** mares. They have two **ducts** each, which open externally. The reproductive system of the **stallion** is responsible for the sexual behavior and secondary sex characteristics (such as a large crest) of the stallion. The external **genitalia** comprise: the testes, which are suspended horizontally within the **scrotum**. The **testis** of an average stallion is **ovoid** from 8 to 12 cm long; the penis, within the **prepuce**, also known as the “**sheath**”. When not erect, the penis is housed within the prepuce, 50 cm long and 2.5 to 6 cm in diameter with the distal end 15 to 20 cm. When erect, the penis doubles in length and thickness and the glands increases by 3 to 4 times. The urethra opens within the **urethral fossa**, a small pouch at the distal end of the glands, the testes, which are suspended horizontally within the scrotum. The internal genitalia comprise the accessory sex glands: **vesicular glands**; **prostate gland**; and **bulbourethral glands**. These contribute fluid to the semen at **ejaculation**, but are not strictly necessary for fertility.

Teeth. A horse's teeth include incisors, premolars, molars, and sometimes canine teeth. A horse's incisors, premolars, and molars, once fully developed, continue to erupt throughout its lifetime as the grinding surface is worn down through chewing.

Hoof. The hoof of the horse encases the second and third phalanx of the lower limbs, analogous to the fingertip or toe tip of a human. In essence, a horse travels on its “**tiptoes**”. The hoof wall is a much larger, thicker and stronger version of the human fingernail or toenail, made up of similar materials, primarily keratin, and a very strong protein molecule. The horse's hoof contains a high proportion of sulfur-containing amino acids which contribute to its resilience and toughness.

Skeletal system. The skeleton of the horse has three major functions in the body. It protects vital organs, provides **framework**, and supports soft parts of the body. Horses have 205 bones, which are divided into the **appendicular** skeleton (the legs) and the **axial skeleton** (the skull, vertebral column, sternum, and ribs). Both pelvic and thoracic limbs contain the same number of bones, 20 bones per limb. Bones are connected to muscles via tendons and other bones via ligaments. Bones are also used to store minerals, and are the site of red blood cell formation.

Ligaments. Ligaments attach bone to bone or bone to tendon, and are vital in stabilizing joints as well as supporting structures. They are made up of **fibrous** material that is generally quite strong. Due to their relatively poor blood supply, ligament injuries generally take a long time **to heal**.

Tendons. Tendons are **chords** of connective tissue attaching muscle to bone, **cartilage** or other tendons. They are necessary for support of the horse's body, and translate the force generated by muscles into movement. Tendons are classified as **flexors** or **extensors**. As tendons pass near bony prominences, they are protected by a fluid filled **synovial** structure, either a tendon sheath or a sac called a **bursa**.

Tendinitis is most commonly seen in high performance horses that gallop or jump. When a tendon is damaged the **healing** process is slow because tendons have a poor blood supply, reducing the availability of nutrients and oxygen to the tendon. Scar tissue within the tendon decreases the overall elasticity in the damaged section of the tendon as well, causing an increase in strain on **adjacent** uninjured tissue.

Muscular system. Muscles are commonly arranged in pairs so that they oppose each other, with one flexing the joint (a flexor muscle) and the other extending it (extensor muscle). A muscle is made up of several muscle bundles, which in turn are made up of muscle fibers. Muscle fibers have **myofibrils**, which are able to contract due **to actin and myosin**.

Respiratory system. The horse's respiratory system consists of the nostrils, pharynx, larynx, trachea, diaphragm, and lungs. Additionally, the **nasolacrimal duct** and **sinuses** are connected to the nasal passage. The horse's respiratory system not only allows the animal to breathe, but also is important in the horse's sense of smell (**olfactory** ability) as well as in communicating.

Circulatory system. The horse's circulatory system includes the fourchambered heart, as well as the blood and blood vessels. Its main purpose is to circulate blood throughout the body to deliver oxygen and nutrients to tissues, and to remove waste from these tissues.

Eyes. The horse has the largest eye of all land mammals, and is designed to help the horse as a prey animal. It provides the horse with a wide field of **monocular vision**, as well as good visual acuity and some ability to see color. Because the horse's vision is closely tied to his behavior, the horse's visual abilities are often taken into account when handling and training the animal.

Hearing. The **pinna** of a horse's ears can rotate in any direction to pick up sounds. The hearing of horses is good, superior to that of humans, and the pinna of each ear can rotate up to 180°, giving the potential for 360° hearing without having to move the head. Often, the eye of the horse is looking in the same direction as the ear is directed.(from Wikipedia, the free encyclopedia. Anatomical Nomenclature in the book “Nomina Anatomica Veterinaria”)

Vocabulary

cecum ['si:kəm] слепая кишка

colon ['kəʊlən] ободочная кишка

mare [mɛə] кобыла

stallion ['stæljən] жеребец

ligament ['ligəmənt] связка

saddle [sædl] седло

barrel ['bærəl] брюхо

rib [rib] ребро

cannon bone ['kænən] берцовая кость

shin [ʃin] голень

metacarpal [ˈmetəˈkɑ:pəl] пястный, пястная кость

chestnut [ˈtʃɛstnʌt] бабка (у лошади), гнедая лошадь

callosity [kæ'ləsiti] затвердение (на коже), мозоль
chin [tʃin] подбородок
groove [gru:v] бороздка, желобок, углубление
curb [kə:b] подгубный ремень, цепка (уздечки), узда
chain [tʃein] цепь, цепочка
coronet ['kɒrənɪt] нижняя часть бабки (у лошади), волосень
coronary ['kɒrənəri] коронарный
band [bænd] фиксатор, тяж (диск)
ring [rɪŋ] кольцо
crest [krest] гребень
croup [kru:p] круп
dock [dɒk] репица (хвоста животного), обрубленный хвост
elbow ['elbəʊ] локоть
ergot ['ə:gət] спорынья
fetlock ['fetlɒk] щетка (волосы за копытом у лошади)
forearm ['fɔ:rm] предплечье
fused radius [fju:zd 'reɪdjəs] лучевая кость
antebrachium ['æntɪ'breɪkiəm] предплечье
forelock ['fɔ:lɒk] прядь волос на лбу
frog [frɒg] стрелка (в копыте лошади)
wedge-shaped ['wedʒ'ʃeɪpt] имеющий форму клина
girth [gɜ:θ] подпруга, подтягивать подпругу
obese [əu'bi:s] тучный, страдающий ожирением
hock [hɒk] коленное сухожилие
tarsus ['ta:səs] предплюсна
hoof [hu:f] копыто
fingernail ['fɪŋənneɪl] ноготь
windpipe ['wɪndpaɪp] дыхательное горло
jugular vein ['dʒʌgjulə veɪn] яремная вена
carotid artery [kə'rɒtɪd 'ɑ:təri] сонная артерия
sympathetic trunk ['sɪmpə'θetɪk trʌŋk] симпатический ствол
carpus ['kɑ:pəs] запястье
loin ['lɔɪn] поясница
lumbar ['lʌmbə] поясничный
spine ['spain] позвоночный столб
mane [meɪn] грива
coarse [kɔ:s] грубый
dorsal ['dɔ:səl] дорсальный, спинной дорсальный, спинной
ridge [rɪdʒ] гребень, выступ
muzzle [mʌzl] морда
pastern ['pæstə:n] бабка (у лошади)
middle [mɪdl] средний
proximal ['prɒksɪməl] проксимальный
phalanx ['fælæŋks] фаланга
splint [splɪnt] шина

vestigial [ves'tidziəl] рудиментарный
carpal ['ka:pəl] запястный
forelimb ['fɔ:lɪmb] передняя конечность
tarsal ['ta:səl] предплюсневой
coccygeal [kɒk'sɪdʒiəl] копчиковый
hard palate [hɑ:d'pælit] твердое небо
parotid [pə'rɒtɪd] околоушной
submaxillary ['sʌbmæksɪləri] субмаксиллярный
sublingual ['sʌb'lɪŋgwəl] подъязычный
incisor [ɪn'saɪzə] резец, передний зуб
to clip [klɪp] отсекать, обрывать
cardiac sphincter ['kɑ:diæk 'sfɪŋktə] кардиальный сфинктер
oblique angle [ə'bli:k æŋɡl] косой угол
chyme [kaɪm] химус, пищевая кашица
pyloric valve [pɪ'lɔrɪk vælv] пилорический клапан
jejunum [dʒɪ'dʒu:nəm] тощая кишка
ileum ['ɪliəm] подвздошная кишка
cul-de-sac ['kuldə'sæk] слепой мешок
transverse colon ['trænzvɜ:s 'kəʊlə] поперечная, ободочная кишка
Sternal ['stɜ:nəl] стерильный
flexure ['flekʃə] изгиб
pelvic ['pelvɪk] тазовый
dorsal ['dɔ:səl] дорсальный
colon ['kəʊlən] ободочная кишка
ventral ['ventrəl] брюшной
diaphragmatic flexure ['daɪəfræg'mætɪk 'flekʃə] диафрагмальный изгиб
impaction [ɪm'pækʃən] закупорка
fecal ['fi:kəl] каловый, фекальный
anus ['eɪnəs] задний проход, анус
Fallopian tubes [fə'lɔpiən 'tju:bz] фаллопиевы трубы
oviduct [əʊvɪdʌkt] яйцевод
ovum [əʊvəm] яйцеклетка зрелая
uterus ['ju:tərəs] матка
cilia ['sɪliə] ресница, ресничка
vagina [və'dʒaɪnə] влагалище
foal [fəʊl] жеребенок, жеребиться
clitoris ['klɪtərɪs] клитор
labium, pl. labia ['ləɪbiəm], ['leɪbiə] губа
mammary gland ['mæməri glænd] молочная железа
virgin ['vɜ:dʒɪn] девственник, девственница
duct [dʌkt] проток
stallion [stæljən] жеребец
genitalia ['dʒeni'teɪliə] гениталии, половые органы
scrotum ['skrəʊtəm] мошонка
testis [testɪs] семенник

ovoid ['əʊvɔɪd] яйцевидный, яйцеобразный
prepuce ['pri:pju:s] крайняя плоть
sheath [ʃi:θ] оболочка
gland [glænd] железа
urethral fossa [juə'ri:θrəl 'fɒsə] уретральная ямка
vesicular [vi'sɪkjʊlə] везикулярный
prostate gland ['prɒsteɪt glænd] предстательная железа
bulbourethral [ˈbʌlbʊəɹjuə'ri:θrəl] бульбоуретральный
ejaculation [ɪdʒekju'leɪʃn] эякуляция
hoof [hu:f] копыто
framework ['freɪmwɜ:k] зубной мост, зубной протез
appendicular [ˈæpən'dɪkjʊlə] аппендикулярный, относящийся к
червеобразному отростку
axial skeleton [ˈæksɪəl 'skelɪtn] осевой скелет
fibrous ['faɪbrəs] волокнистый
to heal [hi:l] излечивать, способствовать заживлению
chord [kɔ:d] хорда
cartilage ['kɑ:t(ə)lɪdʒ] хрящ
flexor ['fleksə] флексор, мышца-сгибатель
extensor [ɪks'tensə] разгибатель, мышца-экстензор
fibroblast [ˈfaɪbrəʊ'blæst] фибропластическая ткань
synovial [sɪ'nɒviəl] синовиальный
bursa ['bɜ:sə] сумка
tendonitis ['tendənɪtɪs] тендинит
healing ['hi:lɪŋ] заживление
adjacent [ə'dʒeɪsənt] соседний, примыкающий
myofibril [maɪəʊ'fɪbrɪl] миофибрилла
actin ['æktɪn] актин
myosin [maɪ'ɒzɪn] миозин
nasolacrimal duct [ˈneɪzrʊ'lækɹɪmə] носослезный проток
olfactory [ɒl'fæktəri] обонятельный
monocular vision [mɒ'nɒkjʊlə vɪʒən] монокулярное зрение
pinna, pl. pinnae ['pɪnə], ['pɪni:] наружное ухо

The anatomy and physiology of the pig

Circulatory system. Pigs, like all mammals, have a four chambered heart. Blood enters the right **atrium** via the **superior** and **inferior vena cava**. The blood is then pumped into the right ventricle from where it is pumped to the lungs to be oxygenated via the pulmonary arteries. Oxygen-rich blood is then pumped through the left atrium and into the left ventricle. Location of the fetal heart will show that the walls of the left ventricle are thicker than those of the other chambers. This is due to fact that the muscle of the left ventricle must be strong enough to pump oxygen-rich blood throughout the body.

The **aortic arch** of a fetal pig has two arteries attached to it, the brachiocephalic artery and the **subclavian artery**. As the aorta descends, it splits into two large **iliac arteries**. An **umbilical artery** branches near the base of each iliac artery. The umbilical arteries run through the umbilical cord, carrying blood to the **maternal placenta** where it becomes oxygenated, nutrient-rich, and free of waste. This oxygenated, nutrient-rich blood is then returned to the liver of the **fetus** via the umbilical vein.

There are only a few differences between the circulatory system of an adult pig and a fetal pig, besides from the umbilical arteries and vein. There is a shunt between the wall of the right and left atrium called the **foramen ovale**. This allows blood to pass directly from the right to left atrium. There is also the **ductus arterius** which allows blood from the right atrium to be diverted to the aortic arch. Both of these **shunts** close a few minutes after birth.

Digestive system. The **monogastric** digestive system of the fetal pig harbors many similarities with many other mammals. The fetal pig's digestive organs are well developed before birth, although it does not ingest food. These organs include the esophagus, stomach, small and large intestines. **Mesenteries** serve to connect the organs of the fetal pig together. In order for digestion to occur, the fetal pig would have to ingest food. Instead, it gains much needed nutrition from the mother pig via the umbilical cord. In the adult pig, food will follow the general flow through the esophagus, which can be located behind the tracheae. From the oral cavity, the esophagus leads to the stomach, small intestine, and large intestine. Other organs developing during fetal pig development such as the gallbladder, pancreas and spleen are all critical in contributing to the overall flow of the digestive system.

After being digested and absorbed, the food follows through the large intestine and is excreted through the **rectum** and anus. In the fetal pig however, the **metabolic** wastes are sent back to the mother through the umbilical cord where the mother excretes the wastes. Other remaining wastes remain in the fetal pig until birth.

The oral cavity of the fetal pig begins developing before birth. The tongue's **taste buds**, located in the enlarged papillae, facilitate food handling after birth. These taste buds develop during fetal development. Adult pigs have up to 15,000 taste buds, a much larger number than the average human tongue, which has 9,000. The dental anatomy of the fetal pig shows differences from adult pigs. The fetal pig develops primary teeth (which are later replaced with **permanent teeth**). Some

may erupt during fetal stage, which is why some of the pigs that are/will be dissected show evidence of teeth. Depending on the age of the fetal pig, it is natural to see eruptions of third incisor and canine in the fetal pig. Because the fetal pigs were still in the mother's uterus, teeth will still form which supports reasons for hollow **unerupted teeth** that may be seen during the **dissection**. Similar to human dental anatomy, the overall dental anatomy of the pig consists of incisors, canines, pre-molars, and molars. Exploring the dental anatomy even further, piglets can have 28th teeth total and adult pigs can have teeth total. If you would like to compare this to the dental anatomy of a human, there are 20 primary teeth and 28–30 permanent teeth.

Urogenital system of a female pig. The fetal pig urogenital system is similar to the adult pig's system with the exception of the reproductive organs. The fetal pig urinary track is relatively developed and easy to locate during dissection. The kidneys are located behind the abdominal organs and are partially embedded into the dorsal body wall by the spine. The ureters carry the urine to the urinary bladder, the large sack-like organ by the umbilical artery and vein, to the urethra. From there, the urine can be excreted. To externally determine if the fetal pig is a female, there will be a fleshy **protrusion ventral** near the anus called the **genital papilla**.

Reproductive system. The female's internal reproductive system is located below the kidneys. The two sac-like organs attached to the coil-like fallopian tubes are the ovaries. The uterus, which becomes the vagina, is located where the fallopian tubes meet. This system can be difficult to find as it is small as well as extremely dorsal and posterior to the other systems.

Male: to externally determine if the fetal pig is male, look for the urogenital opening located behind the umbilical cord. Also note the swelling behind the hind legs of the fetal pig. This will be the **scrotum**. The male's internal reproductive system has two **scrotal sacs**, which depending on the age of the fetal pig may or may not have developed testes. The **epididymis** coil on the testes connects to the **vas deferens**. The vas deferens crosses over the ureter and enters the urethra, which then connects to the penis located just posterior to the skin. Similar to the female system, the male system may also be difficult to identify all parts. If the fetal pig is indeed male, take caution to not cut very deep into the scrotum when dissecting. (from Wikipedia, the free encyclopedia)

Vocabulary

atrium pl. atria ['ætriəm] предсердие
superior vena cava [sju:'piəriə 'vi:nə 'kævə] верхняя полая вена
inferior vena cava [in'fiəriə 'vi:nə 'kævə] нижняя полая вена
aortic arch [ei'ɒtik a:tʃ] дуга аорты
subclavian artery [sʌb'klævjən 'a:təri] подключичная артерия
iliac artery ['iliæk 'a:təri] подвздошная артерия
umbilical artery [ʌmbi'laikəl 'a:təri] пупочная аорта
maternal placenta [mətə:nl plə'sentə] материнская плацента
fetus ['fi:təs] плод

foramen ovale [fɔ'reimən əu'vəil] овальное отверстие
ductus artery ['dʌktəs 'a:təri] артерия семявыносящего
протока shunt [ʃʌnt] шунт
monogastric [ˈmɒnə'gæstri:k] одножелудочный
mesentery ['mesəntəri] брыжейка
rectum ['rektəm] прямая кишка
metabolic [ˈmetə'bɒlik] метаболический
taste bud [teist bʌd] вкусовая почка
permanent teeth [ˈpɛ:mənənt ti:θ] постоянные зубы
unerupted teeth [ˈʌni'rʌptɪd ti:θ] непрорезанные зубы
dissection [di'sekʃn] рассечение
protrusion [prə'tru:ʒn] протрузия
ventral ['ventrəl] брюшной
papilla [pə'pɪlə] сосочек
scrotum ['skrɒtəm] мошонка
epididymis [epi'didimɪs] эпидидимис
vas deferens [væs'defərəns] семявыносящий проток

Theme: The anatomy of domestic animals

Home task:

Read and translate the text (orally).

Write down and learn new professional vocabulary.

Answer 5 questions in writing (optional).

Прочитать и перевести текст (устно).

Записать и выучить новую профессиональную лексику.

Ответить письменно на 5 вопросов (по выбору).

Anatomy is the branch which deals with the form and structure of the principal domestic animals. To understand the structure of the organism in light of the connection between form and function, anatomy uses the data of physiology. Two chief methods of study are employed – systematic and topographic. In the former the body is regarded as consisting of systems of organs or apparatus which are similar in origin and structure and are associated in the performance of certain functions. The approach of systematic anatomy is to divide the organism artificially into parts using the analytical method. The divisions of systematic anatomy are:

- 1) **Osteology (Osteologia)**, the description of the **skeleton**;
- 2) **Arthrology (Arthrologia)**, the description of the **joints**;
- 3) **Myology (Myologia)**; the description of the muscles and **accessory structures**;
- 4) **Splanchnology (Splanchnologia)**, the description of the **viscera**. It includes the following subdivisions:
 - 4.1) **Digestive system (Apparatus digestorius)**;
 - 4.2) **Respiratory system (Apparatus respiratorius)**;
 - 4.3) **Urogenital system (Apparatus urogenitalis)**:
 - a) **urinary organs (Organa uropoetica)**,
 - b) **genital organs (Organa genitalia)**;
- 5) **Angiology**, the description of the organs of **circulation**;
- 6) **Neurology**, the description of the **Nervous system**;
- 7) **Aesthesiology**, the description of the **sense organs** and common **integument**.

Besides systematic anatomy there is topographic anatomy which studies the spatial relationships of the organs in the different body regions. The term topographic anatomy designates the methods by which the relative positions of the various parts of the body are accurately determined. It presupposes a fair knowledge of systematic anatomy. The consideration of anatomical facts in their relation to **surgery**, physical diagnosis, and other practical branches is termed **applied** anatomy. As animal is a part of nature, anatomy, the science studying animal's structure, is part of biology. Animal body is the complex of living matter. The structure of living matter comprises not only the form but the function, not only the morphological but the functional peculiarities of the organism. Anatomy that studies the normal healthy organism is called normal anatomy,

as distinct from pathological or **morbid** anatomy, which is concerned with the study of the sick organism and the morbid changes in its organs.

Anatomy is also related closely to histology, the science of **tissues**, particularly to the branch of histology known as microscopic anatomy. Histology and cytology, the science of the **cell**, are considered independent branches of science. With the invention of the electron microscope, a new science, cytochemistry, was born at the junction of cytology and chemistry. As a result the structure of the animal organism is now studied at different levels: 1) at the level of systems and organs – macroscopic anatomy, micro-macroscopic anatomy, microscopic anatomy; 2) at the level of tissues – histology; 3) at the **cellular** level – cytology; 4) at the molecular level.

Thus, anatomy and histology are currently divided according to level and technique of examination. Anatomy, histology, cytology and embryology constitute the general science of the form, structure and development of the organism which is called morphology.

Vocabulary

osteology [ˈɒstiˈɒlədʒi] остеология

skeleton [ˈskelətən] скелет

arthrology [a:θˈrɒlədʒi] артрология

joint [ˈdʒɔɪnt] сустав

myology [maɪˈɒlədʒi] миология

accessory structures [ækˈsɪsəri ˈstrʌktʃəz] вспомогательные структуры

splanchnology [ˈsplæŋkˈnɒlədʒi] учение о внутренностях

viscera pl. лат [ˈvɪsərə] внутренности (кишки)

digestive [dɪˈdʒestɪv] пищеварительный

respiratory [rɪsˈpaɪəretəri] дыхательный

urogenital [ˈjuərəˈdʒenɪtəl] мочеполовой

urinary [juəˈrɪnəri] мочевой

genital [ˈdʒenɪtəl] половой

angiology [ˈændʒiˈɒlədʒi] ангиология

circulation [ˈsə:kjuˈleɪʃn] циркуляция (крови)

neurology [njuˈrɒlədʒi] неврология

nervous [ˈnɜ:vəs] нервный

aesthesiology [i:sˈθeziˈɒlədʒi] эстеziология

sense organs [ˈsensˈɔ:gəns] органы чувств

integument [ɪnˈteɡjʊmənt] кожа, наружный покров

surgery [ˈsɜ:dʒəri] хирургия

applied [əˈplaɪd] прикладной

morbid [ˈmɔ:bɪd] патологический

tissue [ˈtɪʃu:] ткань

cell [sel] клетка

cellular [ˈseljʊlə] клеточный

Упражнение 1. Ответьте на вопросы.

1. What is anatomy?
2. What does anatomy deal with?
3. What does anatomy use to understand the structure of the organism?
4. What sciences is anatomy connected with?
5. What are the chief methods of study?
6. How many parts does the systematic anatomy consist of?
7. What is physiology?
8. What is histology?
9. What is embryology?
10. What is osteology?
11. How is arthrology termed in Latin?
12. What is myology?
13. What is the Latin for splanchnology?
14. What subdivisions does splanchnology include?
15. What is the Latin term for urogenital system?
16. What organs does it include?
17. What is angiology?
18. What is neurology?
19. What does aesthesiology describe?
20. What does topographic anatomy study?
21. What is applied anatomy?
22. What is normal anatomy?
23. What is pathological anatomy?
24. What is microscopic anatomy?
25. How many levels is the animal organism studied at? What are they?
26. What is morphology?

Theme: The anatomy of the cat, the dog.

Home task:

Read the text. Translate into Russian (orally). Write down and learn the words.

Прочитайте текст. Переведите на русский язык(устно). Запишите и выучите слова.

The anatomy and physiology of the cat

Mouth. Cats have highly specialized teeth for the killing of prey and the tearing of meat: the **premolar** and first **molar** teeth. They present in **canids**, and are highly developed in **felines**. The cat's tongue has sharp **spines**, or papillae, useful for retaining and ripping flesh from a carcass. Cats use a variety of vocalizations for communication, including meowing, purring, hissing, growling, squeaking, chirping, clicking, and grunting. Their types of body language: position of ears and tail, relaxation of whole body, kneading of paws, all are indicators of mood.

Ears. Thirty-two individual muscles in each ear allow for a manner of directional hearing: a cat can move each ear independently of the other. Because of this mobility, a cat can move its body in one direction and point its ears in another direction. Most cats have straight ears pointing upward. When angry or frightened, a cat will lay back its ears, to accompany the growling or hissing sounds it makes. Cats also turn their ears back when they are playing, or to listen to a sound coming from behind them.

Legs. Cats, like dogs, are **digitigrades**. They walk directly on their toes, with the bones of their feet making up the lower part of the visible leg. Cats are capable of walking very precisely, because like all felines they directly register; that is, they place each hind **paw** (almost) directly in the print of the corresponding **forepaw**, minimizing noise and visible tracks. This also provides sure footing for their hind paws when they navigate rough terrain.

Claws. Cats have protractable claws. In their normal, relaxed position the claws are **sheathed** with the skin and fur around the toe **pads**. This keeps the claws sharp by preventing wear from contact with the ground and allows the silent stalking of prey. The claws on the **forefeet** are typically sharper than those on the **hind feet**. Most cats have five claws on their front paws, and four or five on their rear paws. However, domestic and **feral** are prone to **polydactylyism**, and may have six or seven toes. The fifth front claw is proximal to the other claws.

Skin. Cats possess rather loose skin; this allows them to turn and confront a predator or another cat in a fight, even when it has a grip on them. The particularly loose skin at the back of the neck is known as the **scruff**, and is the area by which a mother cat grips her kittens to carry them.

Skeleton. Cats have 7 **cervical vertebrae**, 13 **thoracic vertebrae**, 7 **lumbar vertebrae**, 3 **sacral vertebrae**, and 22 or 23 **caudal vertebrae**. The **extra** lumbar and thoracic vertebrae account for the cat's enhanced **spinal** mobility and **flexibility**, compared with humans. The caudal vertebrae form the tail, used by the cat as a counterbalance to the body during quick movements. Cats also have free-

floating **clavicle bones**, which allow them to pass their body through any space into which they can fit their heads.

Head. The **masseter** is a great, powerful, and very thick muscle covered by a tough, shining **fascia** lying **ventral** to the **zygomatic arch**, which is its origin. It inserts into the posterior half of the **lateral surface** of the **mandible**. Its action is the elevation of the mandible (closing of the jaw).

The temporalis is a great mass of **mandibular muscle**, and is also covered by a tough and shiny fascia. It lies dorsal to the zygomatic arch and fills the **temporal fossa** of the skull. It arises from the side of the skull and inserts into the **coronoid process** of the mandible. It too, elevates the jaw. The two main integumentary muscles of a cat are the **platysma** and the cutaneous **maximus**. The cutaneous maximus covers the **dorsal** region of the cat and allows it to shake its skin. The platysma covers the neck and allows the cat to stretch the skin over the **pectoralis major** and **deltoid muscles**.

Neck and Back. The **rhomboideus** is a thick, large muscle below the **trapezius muscles**. It extends from the vertebral border of the scapula to the **mid-dorsal line**. Origin, neural spines of the first four thoracic vertebrae, insertion, vertebral border of the scapula, action, draws the scapula to the dorsal.

Splenius is the most **superficial** of all the deep muscles. It is a thin, broad sheet of muscle underneath the clavotrapezius and **deflecting** it. It is crossed also by the **rhomboideus capitis**. Its origin is the mid-dorsal line of the neck and fascia. The **insertion** is the superior nuchal line and atlas. It raises or turns the head.

Serratus ventralis is exposed by cutting the wing-like **latissimus dorsi**. The origin is from the first nine or ten ribs, and from part of the cervical vertebrae. The insertion is the vertebral border of the scapula. It draws scapula forward, backward and against the body.

Serratus Dorsalis is medial to both the scapula and the Serratus Ventralis. Origin, **apoeurosis** following the length of the mid-dorsal line, insertion, dorsal portion of the last ribs, action, draws ribs cranial. The **intercostals** are a set of muscles sandwiched between the ribs. They interconnect ribs, and are therefore the primary respiratory skeletal muscles. They are divided into the external and the internal **subscapularis**. The origin and insertion are in the ribs. The intercostals pull the ribs backwards or forwards.

Pectoantebrachialis muscle is just one-half inch wide, and is the most superficial in the pectoral muscles. Origin, **manubrium** of the sternum, insertion, in a flat **tendon** on the fascia of the proximal end of the ulna, action, draws the arm towards the chest.

The **pectoralis major**, also called, pectoralis **superficialis**, is a broad **triangular** portion of the pectoralis muscle which is immediately below the **pectoantebrachialis**. It is actually smaller than the pectoralis minor muscle. Origin, sternum and **median ventral raphe**, insertion, humerus, action, draws the arm towards the chest. The **pectoralis minor** muscle is larger than the pectoralis major. However, most of its **anterior border** is covered by the pectoralis major.

Origin, ribs 3–5, insertion, **coracoid process** of scapula, Action, tipping of the scapula, elevation of ribs 3–5.

The most posterior, flat, thin, and long strip of pectoral muscle is the **xiphohumeralis**. It is a band of parallel fibers that is not found in humans, but in felines. Its origin is the **xiphoid process** of the sternum, the insertion is the humerus.

Trapezius covers the back, and the neck. They pull the scapula toward the mid dorsal line, anteriorly, and posteriorly.

Clavotrapezius, the most anterior of the trapezius muscles, is also the largest. Its fibers run obliquely to the ventral surface. Origin, **superior nuchal line** and **median dorsal line**, insertion, clavicle, action, draws the **clavicle dorsal** and towards the head.

Acromiotrapezius is the middle trapezius muscle. It covers the dorsal and lateral surfaces of the scapula. Origin, neural spines of the cervical vertebrae, insertion, in the **metacromion process** and fascia of clavotrapezius, action, draws the scapula to the dorsal, and holds the two scapulas together.

Spinotrapezius, also called **thoracic trapezius**, is the most posterior of the three. It is triangular shaped. Origin, neural spines of the thoracic vertebra, insertion, scapular fascia, action, draws the scapula to the dorsal and caudal regions. (from Wikipedia, the free encyclopedia)

Vocabulary

premolar [pri:'məʊlə] премоляр, малый коренной зуб

molar ['məʊlə] моляр, большой коренной зуб

canid ['kænid] клык

feline ['fi:lain] животное из семейства кошачьих, кошачий

spine ['spain] позвоночник, позвоночный столб

digitigrade [ˈdidʒiti'greit] пальчатый, имеющий развитые пальцы

paw [pɔ:] лапа

forepaw ['fɔ:pɔ:] передняя лапа

to sheathe [ʃi:d] заключать в оболочку, защищать

toe [təʊ] палец стопы

pad [pæd] подушечка лапы

forefoot ['fɔ:fʊt] передний отдел стопы, лапа

hind feet [haind fi:t] задние ступни

feral ['fiərəl] дикий, неприрученный

polydactylyism [ˈpɒli'dæktɪlɪzəm] полидактилия, многопалость

scruff [skrʌf] задняя часть шеи, выя

cervical vertebra [sə:'vaɪkəl 'və:tɪbrə] шейный позвонок

thoracic v [θɔ:'ræsɪk] грудной позвонок

sacral v ['seɪkrəl] крестцовый позвонок

caudal v. ['kɔ:dəl] хвостовой позвонок

extra lumbar v ['ekstrə'lʌmbə] внепоясничные позвонки

spinal ['spainl] позвоночный, спинальный

flexibility [fleksɪ'bɪləti] гибкость

clavicle bone ['klævɪkl 'brʊn] ключичная кость
masseter [mæ'sətə] жевательная мышца
fascia ['feɪʃə] фасция
ventral ['ventrəl] вентральный, брюшной
zygomatic arch [zaɪgəu'mætɪk a:tʃ] скуловая дуга
lateral surface ['lætərəl 'sə:fɪs] латеральная поверхность
mandible ['mændɪbl] нижнечелюстной
mandibular muscle [mæn'dɪbj:ulə 'mʌsl] нижнечелюстная мышца
temporal fossa ['tempərəl 'fɒsə] височная ямка, висок
coronoid process ['kɒrənɔɪd 'prəʊses] венечный отросток (нижней челюсти)
platysma ['plætɪzmə] подкожная мышца шеи
maximus ['mæksɪməs] наибольший, большой
dorsal ['dɒ:səl] дорсальный, спинной, тыльный
pectoralis major ['pektərəlɪs] грудная большая
deltoid muscle ['deltɔɪd 'mʌsl] дельтовидная мышца
rhomboides ['rɒm'bɔɪdəs] ромбовидный
trapezius ['træpi:zjəs] трапециевидный
mid-dorsal line [mɪd-'dɒ:səl] среднедорсальная линия
superficial [ˈsju:pə'fi:ʃəl] поверхностный
deflecting [dɪ'flektɪŋ] искривление, изгиб
capitis ['kæpɪtɪs] головной, головчатый
insertion [ɪn'sɜ:ʃən] прикрепление, введение
serratus ['serɪtəs] зубец, зубчатость, зубчатый
ventralis [ventr:'æɪlɪs] вентральный, брюшной
atissimus [læ'tɪsɪməs] широчайший
dorsum ['dɒ:səm] спина
intercostal [ˈɪntəkɒstl] межреберный
pectoral ['pektərəl] грудной
tendon ['tendən] сухожилие
triangular [traɪ'æŋɡjʊlə] трехангулярный, угловой, коленчатый
median ventral raphe ['mi:dʒən 'ventrəl reɪf] срединный брюшной шов
anterior border [æn'tɪəriə 'bɒ:də] передний край
coracoid process ['kɒrəkɔɪd 'prəʊses] клювовидный отросток (лопатки)
xiphoid process [ksɪ'fɔɪd 'prəʊses] мечевидный, мечеобразный
superior nuchal line [sju:'piəriə 'nju:kl laɪn] верхняя выйная линия
median dorsal line ['mi:dʒən 'dɒsəl laɪn] средняя дорсальная линия
clavicle dorsal ['klævɪkl 'dɒsəl] дорсальная ключица
metacromion process [ˈmetək'rəʊmjən ['prəʊses] метакромияльный отросток
thoracic trapezius [θɒ:'ræɪsɪk trə'pi:zjəs] грудная кость-трапеция

Theme: The anatomy of the cat, the dog.

Home task:

Read the text. Translate into Russian (orally). Write down and learn the words. Answer 3 questions of your choice.

Прочитайте текст. Переведите на русский язык(устно). Запишите и выучите слова.

Ответьте на 3 вопроса по вашему выбору.

The anatomy and physiology of the dog

External anatomy is concerned with the study of such organs as **muzzle**, **dewlap** (throat, neck skin), shoulder, elbow, forefeet, **croup**, leg (thigh and **hip**), **hock**, hind feet, **withers**, **stifle**, paws, tail.

Physical characteristics. Like most predatory mammals, the dog has powerful muscles, a cardiovascular system that supports both **sprinting** and **endurance**, and teeth for catching, holding, and tearing. The dog's **ancestral skeleton** provides the ability to run and **leap**. Their legs are designed to propel them forward rapidly, leaping as necessary, to **chase** and overcome **prey**. Consequently, they have small, tight feet, walking on their toes; their rear legs are fairly rigid and sturdy; the front legs are loose and flexible, with only muscle attaching them to the **torso**. Dogs have disconnected shoulder bones that allow a greater stride length for running and leaping. They walk on four toes, front and back, and have **vestigial dewclaws** (dog **thumbs**) on their front legs and sometimes on their rear legs.

Sight. Like most mammals, dogs are **dichromats** and have color vision equivalent to red-green color blindness in humans. Different breeds of dogs have different eye shapes and dimensions, and they also have different retina **configurations**. Dogs with long noses have a “visual **streak**” which runs across the width of the retina and gives them a very wide field of excellent vision, while those with short noses have an “area centralis” – a central patch with up to three times the density of nerve endings as the visual streak – giving them detailed sight much more like a human's. Some breeds have a field of vision up to 270°, although broad-headed breeds with short noses have a much narrower field of vision, as low as 180°.

Hearing. The frequency range of dog hearing is approximately 40 Hz to 60,000 Hz. Dogs detect sounds as low as the 16 to 20 Hz frequency range and above 45 kHz, and in addition have a degree of ear mobility that helps them to rapidly pinpoint the exact location of a sound. Eighteen or more muscles can tilt, rotate and raise or lower a dog's ear. Additionally, a dog can identify a sound's location much faster than a human can, as well as hear sounds up to four times the distance that humans are able to.

Smell. Dogs have nearly 220 million smell-sensitive cells over an area about the size of a pocket handkerchief. Dogs can sense **odours** at concentrations nearly 100 million times lower than humans can. The percentage of the dog's brain that is devoted to analyzing smells is actually 40 times larger than that of a human. Some

dog breeds have been selectively bred for excellence in detecting **scents**, even compared to their **canine** brethren.

Modern dog breeds exhibit a diverse array of fur coats, including dogs without **fur**. Dog coats vary in texture, color, and markings, and a specialized vocabulary has evolved to describe each characteristic.

Tail. There are many different shapes for dog tails: straight, straight up, sickle, curled, cork-screw. In some breeds, the tail is traditionally docked to avoid injuries. It can happen that some puppies are born with a short tail or no tail in some breeds. (from Wikipedia, the free encyclopedia)

Vocabulary

muzzle [mʌzl] морда

dewlap ['dju:læp] подгрудок

croup [kru:p] зад, круп

hip [hip] бедро, бок

hock [hɒk] поджилки, коленное сухожилие

wither ['wiðə] холка

stifle [staɪfl] коленный сустав, коленная чашка

to sprint [sprint] бежать на короткую дистанцию спринтовать

endurance [ɪn'dju:ərəns] выносливость

ancestral [æn'sestrəl] наследственный, родовой

leap; to leap [li:p] прыжок, скачок; прыгать

to chase [tʃeɪs] преследовать, гнаться

to prey [preɪ] охотиться, ловить

torso ['tɔ:səu] туловище

vestigial [ves'tɪdʒiəl] остаточный, исчезающий

dewclaw ['dju:kləu:] рудиментарный отросток в виде пальца на лапе

thumb [θʌm] большой палец

dichromatic [ˈdaɪkrəʊ'mætɪk] двухцветный

configuration [kən'fɪgju'reɪʃən] форма, конфигурация

streak [stri:k] жилка, прожилка

hearing ['hiəriŋ] слух

odour ['əʊdə] запах

scent [sent] след, запах

canine ['keɪnɪn] собачий

fur [fə:] шерсть, шкура

tail [teɪl] хвост

Упражнение 1. Ответьте на вопросы.

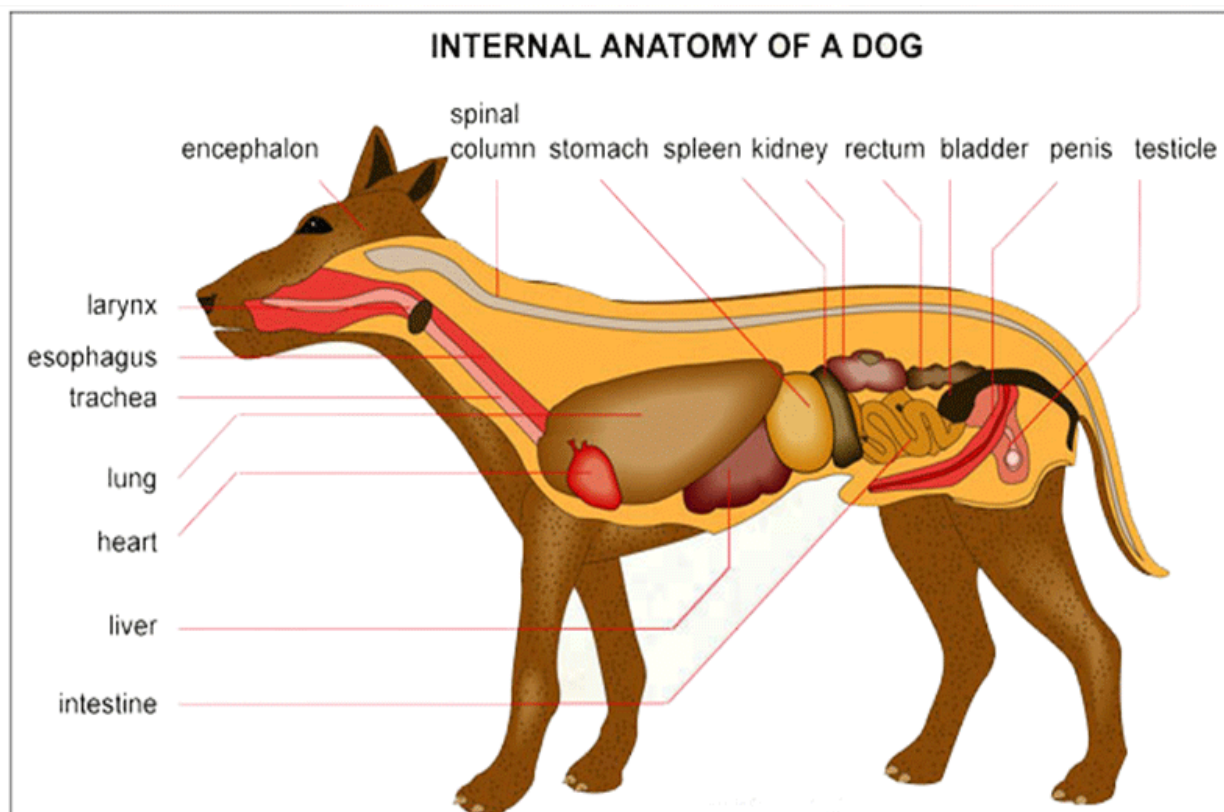
1. How many chief parts of the dog body do you know?
2. What are the teeth for?
3. What is the skeleton composed of?
4. What are the legs for?
5. What are the organs of special sense?
6. What are the organs of sense for?

Theme: What do you know about dogs? Participle. Control work.

Home task: Пройдите по ссылке и выполните тест. Пришлите скрин результата.

https://www.gotoquiz.com/what_do_you_know_about_dogs_3

Дайте русский эквивалент словам на картинке, запишите эти слова и выучите наизусть.



Theme: What do you know about dogs?

Home task: Work through the questions in the assignment. Select one of the proposed positions. Fill the table. Проработайте вопросы к заданиям. Выберите одну из предложенных позиций. Заполните таблицу.

1. **DOGS' NOSES:** Students walk around the class and talk to other students about dogs' noses. Change partners often and share your findings.

2. **CHAT:** In pairs / groups, talk about these topics or words from the article. What will the article say about them? What can you say about these words and your life?

researchers / science / mysteries / cold / detectors / nose / temperature / prey / heat

experiments / objects / humans / activity / author / radiation / behaviour / predators

Have a chat about the topics you liked. Change topics and partners frequently.

3. **DOGS:** Students A **strongly** believe dogs are the best pets; Students B **strongly** believe they aren't. Change partners again and talk about your conversations.

4. **ANIMAL ABILITIES:** What abilities do these animals have? Would you like them? Why? Complete this table with your partner(s) and share what you wrote.

Change partners often.

	Ability	Would You Like It?	Why?
Dog			
Spider			
Ant			
Dolphin			
Eagle			
Bee			

Theme: Professional terms. Working with a dictionary

HOME TASK:

REWRITE AND TRANSLATE WORDS. LEARN A NEW VOCABULARY.

ПЕРЕПИСАТЬ И ПЕРЕВЕСТИ СЛОВА. ВЫУЧИТЬ НОВУЮ ЛЕКСИКУ.

VETERINARIAN VOCABULARY WORD LIST (216)

A)	Ability, Abscess, Abuse, Adverse, Affect, Agitation, Agony, Amount, Analysis, Appetite, Appoin
B)	Badge, Behavior, Big animal, Bizarre, Blood sample, Business
C)	Care, Career, Case, Caution, Cleanse, Client, Clinic, Clinical, Colic, Collaboration, Comfort, Con Consultation, Contagious, Contaminant, Counteraction, Creature
D)	Deadly, Degree, Dehydration, Deprivation, Desire, Devotion, Diagnosis, Diet, Discharge, Disease
E)	Ease, Education, Effective, Element, Equine, Equipment, Evidence, Examination, Experience
F)	Fact finding, Fear, Feverish, Fluids
G)	Gear, Gentle, Goal, Guesswork, Gurney
H)	Harm, Health, Hospital, Hour, Humane, Hydration
I)	Illness, Indication, Inevitable, Ingest, Injection, Injury, Instinct, Intense, Intramuscular, Irregularity
J)	Joint, Joy
K)	Kick
L)	Laboratory, Laceration, Latent, Lethal, Lethargic, License, Lunge
M)	Malady, Malnutrition, Mannerism, Measure, Medical bag, Medicine, Merit
N)	Necessity, Normal, Nuisance, Nutrition
O)	Obsess, Odd, Official, On call, Operate, Opiate, Opportunity, Option, Out of sorts, Output, Overc
P)	Paddock, Pain, Panel, Paraphernalia, Pasture, Patience, Patient, Poison, Portable, Practice, Precau Psychic, Pulse, Puzzling
Q)	Quality, Quantity, Quick, Quiet, Quirk
R)	Recovery, Regimen, Regulation, Report, Reputation, Resistance, Respiration, Respite, Restraint,
S)	Sample, Satchel, Sedative, Service, Severity, Shatter, Sickness, Side-effect, Sign, Situation, Small Stethoscope, Stroke, Structure, Studies, Successful, Superficial, Surgery, Symptoms, Syringe

T)	Teamwork, Tech, Technical, Temperature, Tendency, Terminology, Tether, Thermometer, Tireless
U)	Unique, Unknown, Urgency
V)	Vascular, Version, Vicious, Victory, Vigil, Virus, Vision, Vital sign
W)	Warning, Wary, Well-being, Wisdom, Work up, Worry, Wound
X)	X-ray
Y)	
Z)	Zeal

Theme: Diseases of animals and birds.

Home task: Read and translate the text (orally). Rewrite and learn words. Answer 3 questions in writing (optional).

Прочитать и перевести текст (устно). Переписать и выучить слова. Ответьте письменно на 3 вопроса (по выбору).

Psoroptose of neat cattle is an infectious disease. The disease is clinically **revealed** in herds after the establishment of stable cold spell and the arrangement of **stalled keeping** of cattle.

The infection mostly often occurs when **sick** animals contact with healthy ones.

Usually the first symptoms of the disease in **herbs** are revealed in animals with chronic dermatitis. Then the number of sick animals in the herb is growing and sick animals' psoroptose process is progressing. The disease spreads quickly among young animals (up to the age of 2 years) than adult animals.

With a warm spell, the disease is gradually dying down and then the clinical symptoms of the disease disappear. Animals that have got the disease and haven't been **cured** get ill again the next cold period and serve as a source of the disease.

Lice and vlasoedi contribute to a great extent to development of psoroptose. Paraziting on animals' bodies, they **provoke irritation** of skin **neural** ends and **itch** and make better conditions for accustoming of ticks.

Coetaneous ticks pierce epidermis with their **proboscis** and secrete toxic **secretion**, provoke the development of **inflammation** process and itch.

The increase of the number of ticks contributes to a quick involving of healthy skin parts into a pathological process. The scratched skin surface **bleeds**. Mixing with hair and **scabs**, blood **coagulates** and makes big dark scabs.

Primarily, the **nidi** of the **affection** are localized at the base of horns, on the upper part of a neck, on a **sacral bone**, at the root of a tail. Then process spreads on the other parts of a body. The first clinical symptom is a skin itch. An animal **licks** and scratches **itching places**.

The itch **reveals** in rest and in movement, day and night, sometimes the process is complicated with the formation of the **piodermic focuses**. The disease weakens animals, it makes them **predispose** to other disease and it may become the cause for death.

The general development of psoroptose of neat cattle is characterized by the duration of the treatment. There are suggested medical and prophylactic treatments of neat cattle. They are used with the help of the method of **largedrop sprinkling** in the form of emulsions, suspensions and **solutions**, and by ointments and liniments. The **insecticide powder** is used in cold seasons.

It's obligatory **to quarantine** all the new coming animals to the farm, to keep animals in accordance with veterinary-sanitary norms, to organize full highly-qualified feeding.

Vocabulary

psoroptose – псороптоз
neat cattle - крупный рогатый скот
to reveal – проявляться
stalled keeping - стойловое содержание
sick - больной
herb - гурт
to cure - лечить
lice - вши
to provoke - вызывать
irritation - раздражение
neural - нервный
itch - зуд
coetaneous - кожный
tick - клещ
to pierce - прокалывать
proboscis - хоботок
secretion - выделение, секреция
inflammation - воспаление
to bleed - кровоточить
scab - корка
coagulate - свертываться
nidi - очаги
affection - поражение
sacral bone - крестец
to lick -лизывать
itching place - зудящее место
piodemic - пиодермический
focuse - фокус
to prediscope - предрасполагать
large-drop - крупнокапельный
sprinkling - опрыскивание
solution - раствор
ointment - мазь
insectide powder - дустирование
to quarantine - подвергать карантину

Упражнение 1. Ответьте на вопросы.

1. What kind of disease is psoroptose of neat cattle?
2. What symptoms of the disease do sick animals have?
3. How quickly does the disease spread?
4. What insects influence the development of psoroptose and how?
5. What treatment of neat cattle is used?
6. How should the sick animals be kept?

Theme: Plague of dogs.

Home task:

Read and translate the text (orally). Write down words and learn. Complete writing exercise # 1.

Прочитать и перевести текст (устно). Записать слова и выучить. Выполнить письменно упражнение №1.

The **plague** of dogs is an **infectious** disease. It **amazes** dogs of young age, about one year. It is clinically shown as **catarrhal** inflammations of a **mucous membrane** of respiratory ways, a digestive path and occurrence **eczema** on a skin and very much frequently a defeat of the central nervous system. It causes the big death rate among fallen ill dogs. The season for occurrence and distribution of a plague of dogs has no essential value.

The **infecting agent** of a plague of dogs is a filtering virus opened in 1905. (Kappe). It complicates current of a plague infection.

According to practical supervision dogs with a plague in the age of from 3 till 12 months fall ill and are in advanced age.

The virus of a plague from an organism of a sick dog is allocated together with the **expiration** from nasal cavities, the eye and pollutes environment. It is possible, that the virus is allocated also with **urine** and stool.

After **recovery** a dog remains a virus carrier. It is proved; it can allocate a virus from an organism in an environment.

Secondary sources of infection can be **forages**, water, subjects of **stock**, and also places after walking a dog, polluted of feces of the sick animals. It is considered that the virus from a place of primary introduction will penetrate into a blood channel, together with a blood it is distributed along an organism and in such way reaches the central nervous system.

Duration of the incubatory period at infection with a plague of dogs is 2–3 weeks.

In one case there are symptoms which defeat respiratory organs and nervous system.

At the beginning of disease **depression**, the general weakness, **lowered reaction** to external irritations, refusal of forage, from time to time **trembling** (fever) are marked. The body temperature is raised. As specific means of treatment of a plague of dogs serum is applied.

Vocabulary

plague - чума

infectious - заразный

to amaze - поражать

catarrhal - катаральный

mucous - слизистый

membrane - оболочка, мембрана

eczema - экзема

infecting agent - возбудитель болезни

expiration - выделение

urine - моча

recovery - выздоровление

forage - корма

stock - инвентарь

duration - продолжительность

depression - угнетенное состояние

lowered reaction - пониженная реакция

trembling - дрожание

Упражнение 1. Ответьте на вопросы.

1. What disease is the plague of dogs?
2. What symptoms of the disease do sick animals have?
3. Who opened a virus?
4. When was it opened?
5. At what age do the dogs fall ill?
6. What is a source of the disease?
7. What means of treatment is applied?
8. What should people do if they have a sick animal?
9. How long are the dogs ill?

Theme: Salmonellosis Yersiniosis Add. Informational message.

Home task: Read and translate the text (orally). Write down words and learn. Complete writing exercise № 1,2.

Прочитать и перевести текст (устно). Записать слова и выучить. Выполнить письменно упражнение №1,2.

Yersiniosis

Yersiniosis is a disease caused by the bacterium *Yersinia enterocolitica*. Can animals **transmit** yersiniosis to people? Yes, some animals **pass** *Yersinia enterocolitica* in their **feces** and people can get sick from contact with infected feces. Other animals that can carry this disease include cats, dogs, horses, cows, **rodents**, and **rabbits**. People can also get yersiniosis by eating **pork** that is not cooked completely or by drinking contaminated milk. Young children usually have fever, stomach **pain**, and **diarrhea**. Adults can feel **pain** on their right side and may have a fever, pain in joints, such as knees or **wrists**.

Vocabulary

yersiniosis - иерсиниоз

to transmit - передавать

to pass - переносить

feces - фекалии

rodent - грызун

rabbit - кролики

pork - свинина

pain - боль

diarrhea - понос, диарея

pain - боль

wrist - запястье

Упражнение 1. Ответьте на вопросы.

1. What animals can get sick by yersiniosis?
2. Can people get yersiniosis? And how?
3. What symptoms of yersiniosis people have?
4. What should the patients do if they have yersiniosis?
5. Would you follow the doctor's recommendation if you have a disease?

Salmonellosis

Salmonellosis is a bacterial disease caused by the bacterium *Salmonella*. More often it infects cattle of young age. Symptoms include fever, watery diarrhea, and cough. In some cases animals may die in 5–10 days. Salmonellosis affects lungs, and gastrointestinal system. Many different kinds of *Salmonella* can make people sick. Most people have diarrhea, fever, and stomach pain. These symptoms usually go away after one week. Sometimes, people have to see a doctor or go to the hospital if the diarrhea is **severe** or the infection has **affected** other organs.

Many kinds of animals can pass salmonellosis to people. Usually, people get salmonellosis by eating contaminated food, such as chicken or eggs. However, animals can carry *Salmonella* and pass it in their feces (**stool**). Therefore, people can also get salmonellosis if they do not wash their hands after touching the feces of animals. Reptiles (**lizards, snakes, and turtles**), baby chicks, and ducklings are especially likely to pass salmonellosis to people. Dogs, cats, birds (including pet birds), horses, and farm animals can also pass *Salmonella* in their feces.

Some people are more likely than others to get salmonellosis. A person's age and health status may affect his or her **immune** system, increasing the chances of getting sick. People who are more likely to get salmonellosis include **infants**, children younger than 5 years old, organ transplant **patients**, people with **HIV/AIDS**, and people receiving treatment for **cancer**.

Vocabulary

salmonellosis - сальмонеллез

to infect - заражать

severe - сильный

to affect - поражать

stool - стул, действие кишечника

lizard - ящерица

snake - змея

turtle - черепаха

immune - иммунный

infant - ребенок

patient - больной

cancer - рак

HIV (human immunodeficiency virus) иммунодефицита человека вирус (ВИЧ)

AIDS (acquired immunodeficiency syndrome) синдром приобретенного иммунодефицита (СПИД)

Упражнение 2. Ответьте на вопросы.

1. What disease is salmonellosis?
2. What cattle does salmonellosis infect more often?
3. What symptoms of the disease do the cattle have?
4. Can people get salmonellosis?
5. What symptoms do people have?
6. What should the patients do if they have salmonellosis?

Theme: Cryptosporidium infection. Brucellosis.

Home task: Make a short summary of the lesson. Write down and learn words. Perform exercises №1 and №2.

Сделать краткий конспект урока. Записать и выучить слова. Выполнить упражнения №1 и № 2.

Cryptosporidium infection

Cryptosporidium infection (cryptosporidiosis) is a **parasitic** disease caused by *Cryptosporidium parvum*. It usually causes severe infection of the **gastrointestinal system**, including **watery diarrhea**, fever, abdominal **cramps**, **nausea**, and **vomiting**.

Most people get *Cryptosporidium* infection from contaminated food and water. However, sometimes animals (including farm animals, cats, and dogs) carry this **parasite** in their feces (stool) and pass it to people. People with **compromised** immune systems, such as those undergoing **immunosuppressive** treatments for cancer, organ transplant patients, and people with HIV/AIDS, are more likely than others to get *Cryptosporidium* infection.

Vocabulary

Cryptosporidium L. криптоспоридийный

parasitic - паразитический

gastrointestinal - желудочно-кишечный

watery diarrhea - водяной понос

cramp - судороги

nausea - тошнота

vomit - рвота

parasite - паразит

to compromise - подвергать риску

immunosuppressive - иммуносупрессорный

Упражнение 1. Ответьте на вопросы.

1. What disease is cryptosporidium infection?
2. Can people get cryptosporidium infection?
3. What symptoms do people have if they have cryptosporidium infection?
4. How do people get cryptosporidium infection?

Brucellosis

Brucellosis is a bacterial disease caused by the bacterium *Brucella*. It is a chronic disease of man and animals. At the **acute form** (< 8 weeks from illness onset) people have nonspecific and “flu-like” symptoms such as fever, sweats, **malaise, anorexia, headache, myalgia**, and back pain. At the **undulant** form (< 1 year from illness onset), symptoms include undulant fevers, arthritis. Neurologic symptoms may occur acutely in up to 5 % of cases. In the chronic form (> 1 year from onset), symptoms may include chronic **fatigue syndrome**, depression, and arthritis.

Among cattle and pigs are usually met abortions and **epididymo-orchitis**. Commonly it is transmitted through **abrasions** of the skin from handling infected mammals. It occurs more frequently by ingesting unpasteurized milk or dairy products at the **abattoir** workers, meat inspectors, animal handlers, **veterinarians**, and laboratorians.

Vocabulary

brucellosis - бруцеллез

acute form - острая форма

malaise - недомогание

anorexia - потеря аппетита

headache - головная боль

myalgia - миалгия, боль в мышцах

undulant - волнообразный

epididymo-orchitis - воспаление яичка и его придатка

fatigue - усталость

syndrome - синдром

abrasions - ссадины

abattoir - котобойня

veterinarian [ˈvetəriˈneəriən] ветеринар

Упражнение 2. Ответьте на вопросы.

1. What symptoms of brucellosis do people have?
2. What symptoms of brucellosis does cattle have?
3. How does brucellosis spread?
4. Can people get brucellosis?

Theme: Rabies. Anthrax Phrase.

Home task: Make a short summary of the lesson. Write down and learn words. Perform exercises №1 and №2.

Сделать краткий конспект урока. Записать и выучить слова. Выполнить упражнения №1 и № 2.

Rabies

Rabies is the **anthropozoonotic** disease with aggressive clinical behavior. It is caused by polypathogenic **neurotropical virus** and transferred **via** the bite with saliva of an infective patient. It is accompanied by the affection of central nervous system, and as a rule ends with animal's death.

All warm-blooded animals are **susceptible** to rabies virus. They are fox, wolf, and jackal of cats and cattle, dogs, sheep, goats, and horses.

The source of virus agents comes to be ill animals and virus carries.

The most typical **signs** are registered with dogs. The first symptoms usually appear in 10–15 days after the **contamination**. The animal does not react to calling, it becomes very gentle, or barks without any reason. The appetite is perverted, the animal refuses to eat, but can hardly swallow. Dogs have no hydrophobia; they are thirsty but cannot drink much. The experience dysphasia and difficulty of urination excrements are watery with odd objects inside. Salivation and sexual instincts are more intense. Depression comes after rage attacks and continues with indifference. During rage attacks the animal can bite a stick and keep it, if in a cage it bites swigs damaging its mouth mucous **tunic** and breaking teeth. The animal becomes aggressive wants to escape wherever. The wandering dogs tires to bite people and animals. The **paralysis** of larynx, tongue, lower jaw or pelvic is possible. The animals die because of the **suffocation** caused by the paralysis of respiratory center.

The clinical behavior of other species of animals can differ. For example, cats usually have violent form followed by **husky mewing**, **scratching** other animals and people, tries to escape. The duration of the disease is 3–6 days.

The violent form is observed with horses; they fall down and stand up, bite people caring after them or other try to run away, hit against obstacles. The paralysis starts with pelvic **limbs** and proceeds slowly. The disease lasts 4–6 days. The symptoms with cattle are the same as with horses. An ill animal is very aggressive, attacks other cattle and horses, butting or even biting them. The **mooring** is hoarse, loud and long. The clinical behavior of sheep and goats is practically the same.

The violent forms are also observed with pigs characterized by **anxiety**, **excitement** and aggressive attitude towards other animals and people. Rabies with

birds is very rare, and is registered only in natural conditions due to a **bite** of an animal.

Among wild animals the wolves are affected mostly. They are extremely aggressive; they attack animals and people even in cities. The cases of rabies with jackal, wild pig, bear, lion and antelope are known.

The cadavers of dead animal have bites and scratches. There is congestive **hyperemia** of inner organs. The stomach is empty; have some uneatable objects inside. There may be some signs catarrhal inflammation of stomach mucous tunic and small intestine and sometimes of hemorrhage. The brain is edematic with cerebral hemorrhage.

Diagnosis is identified on the basis of epizootological clinical data and results of laboratory testing. The cadaver or the head is examined in the laboratory. Brain tissue is microscopically examination in order to discover Negri corpuscles.

Dry cultural inactivated vaccine of BНИИТИБР and AZVI antirabic vaccine are used for rabies prevention and postinfectious vaccination with exception of dogs. In 1973 World Health Organization recommended inactivated antirabic vaccine as the most adequate for rabies prevention and treatment with animals. In our country inactivated ethanol VGNKI is used. All animals are killed, and their cadavers are destroyed (cremated).

Vocabulary

Rabies - бешенство

anthropozoonotic - антропозооноотический

neurothropical - нейротропный

virus - вирус

via - через

susceptible - восприимчивый

sign - признак

contagiation - заражение

tunic - оболочка

paralysis - паралич

suffocation - удушье

husky mewing - хриплое мяуканье

scratching - царапанье

limb - конечность

mooring - мычание

anxiety - беспокойство

bite - укус

hyperemia - гиперемия

excitement - возбуждение, волнение

Упражнение 1. Ответьте на вопросы.

1. What disease is rabies?
2. What virus is it caused by?
3. What kinds of animals are susceptible to rabies virus?
4. What is a source of the disease?
5. How long are the animals ill?

Anthrax

Anthrax is an acute infectious disease caused by the bacterium *Bacillus anthracis* and is highly **lethal** in some forms. Anthrax most commonly occurs in wild and domestic **ruminants**, but it can also occur in humans when they are exposed to infected animals, tissue from infected animals, or high density of anthrax **spores**. Anthrax cannot spread from human to human. Anthrax infection is extremely rare in common domestic pets (dogs and cats).

Anthrax is rare in humans although it occasionally occurs in ruminants such as cattle, sheep, goats, camels, and antelopes. *Bacillus anthracis* bacteria are **soil-borne**.

Anthrax can enter the human body through the intestines, **lungs**, or skin (**cutaneous**) and causes distinct clinical syndromes based on its site of entry. An infected human will generally be quarantined. However, anthrax does not usually spread from an infected human to a noninfected human.

Anthrax is usually contracted by handling infected animals or their wool, germ warfare/terrorism or laboratory accidents.

Pulmonary (respiratory or inhalation) anthrax. Respiratory infection initially present with cold or flu-like symptoms for several days, followed by severe (and often fatal) respiratory **collapse**. If not treated soon after exposure, before symptoms appear, inhalation anthrax is highly fatal, with near 100% mortality.

Gastrointestinal (gastroenteric) anthrax. Gastrointestinal infection is most often caused by the ingestion of infected meat and often presents with serious gastrointestinal difficulty, vomiting of blood, severe diarrhea, acute inflammation of the intestinal **tract**, and loss of appetite. Intestinal infections result in fatality 25 to 60 % of the time.

Cutaneous (skin) anthrax. **Cutaneous** infection is manifested by progressive stages from an erythematous **papule** to **ulceration** and finally to formation of black **scar** (i.e., eschar). The black **eschar** often presents with a large, painless necrotic ulcers (beginning as an irritating and **itchy** skin **lesion** or blister that is dark and usually concentrated as a black **dot**, somewhat **resembling** bread mold) at the site of infection. Cutaneous infection is the least fatal but without treatment, approximately 20 % of all skin infection cases may progress to toxemia and death. Treated cutaneous anthrax is rarely fatal.

Treatment for anthrax infection and other bacterial infections includes large doses of intravenous and oral antibiotics, such as, penicillin, ciprofloxacin, doxycycline, erythromycin, and vancomycin.

Anthrax spores can **survive** for long periods of time in the environment after release. Methods for cleaning anthrax contaminated sites commonly use **oxidizing agent** such as peroxides. These agents slowly destroy bacterial spores.

Chlorine dioxide has emerged as the preferred **biocide** against anthraxcontaminated sites having been employed in the treatment of numerous government buildings over the past decade.

Vocabulary

anthrax - сибирская язва

lethal - смертельный

ruminant - жвачное животное

spore - спора

soil-borne - переносить почвой

lung - легкое

cutaneous - кожный

pneumonic - пневмонический

collapse - гибель

tract - тракт

papula - папулы узелок

ulceration - изъязвление

scar - шрам

eschar - струп

itchy - зудящий

lesion - поражение

dot - точка

to resemble - напоминать

to survive - выживать

biocide - биоцид

oxidizing - окисление

agent - агент

Упражнение 2. Ответьте на вопросы.

1. What disease is anthrax?
2. What animals suffer from anthrax?
3. How can people get anthrax?
4. What kinds of anthrax are there?
5. What symptoms of pulmonary anthrax do the animals have?

Theme: Diseases of the sheep

Home task:

Read and translate the text (orally). Write out 5-10 sentences containing information about sheep diseases. Write down and learn words. Answer questions in writing.

Прочитать и перевести текст (устно). Выписать 5-10 предложений содержащих информацию о болезнях овец. Записать и выучить слова. Ответить письменно на вопросы.

Sheep may fall victim to poisons, infectious diseases, and physical injuries. There are some obvious signs of ill health, with sick sheep eating little, vocalizing excessively, and being generally listless. In the XXth and XXIst centuries, a minority of sheep owners have turned to alternative treatments such as homeopathy, herbalism and even traditional Chinese medicine to treat sheep veterinary problems. The need for traditional anti-parasite drugs and antibiotics is widespread, and is the main impediment to certified organic farming with sheep.

Many breeders take a variety of preventative measures to warn off problems. The first is to ensure that all sheep are healthy when purchased. Many buyers avoid outlets known to be clearing houses for animals culled from healthy flocks as either sick or simply inferior. This can also mean maintaining a closed flock, and quarantining new sheep for a month. Two fundamental preventative programs are maintaining good nutrition and reducing stress in the sheep. Handling sheep in loud, erratic ways causes them to produce cortisol, a stress hormone. This can lead to a weakened immune system, thus making sheep far more vulnerable to disease. Signs of stress in sheep include: excessive panting, teeth grinding, restless movement, wool eating, and wood chewing. Avoiding poisoning is also important, common poisons are pesticide sprays, inorganic fertilizer, motor oil, as well as radiator coolant (the ethylene glycol antifreeze is sweet-tasting)

Common forms of preventive medication for sheep are vaccinations and treatments for parasites. Both external and internal parasites are the most prevalent malady in sheep, and are either fatal, or reduce the productivity of flocks. Worms are the most common internal parasites. They are ingested during grazing, incubate within the sheep, and are expelled through the digestive system. Oral anti-parasitic medicines known as drenches are given to a flock to treat worms, sometimes after worm eggs in the feces has been counted to assess infestation levels. Afterwards, sheep may be moved to a new pasture to avoid ingesting the same parasites. External sheep parasites include: lice, sheep kids, nose bots, sheep itch mite, and maggots. Kids are blood-sucking parasites that cause general malnutrition and decreased productivity, but are not fatal. Maggots are those of the bot fly and the blow-fly. Fly maggots cause the extremely destructive condition of flystrike. Flies lay their eggs in wounds or wet, manure-soiled wool, when the maggots hatch they burrow into a sheep's flesh, eventually causing death if untreated. In addition to other treatments, crutching is a common preventative method. Nose bots are flies that inhabit a sheep's sinuses, causing breathing difficulties and discomfort.

Common signs are a discharge from the nasal passage, sneezing, and frantic movement such as head shaking. External parasites may be controlled through the use of backliners, sprays or immersive sheep dips.

A wide array of bacterial diseases affects sheep. Diseases of the hoof, such as foot rot and foot scald may occur, and are treated with footbaths and other remedies. These painful conditions cause lameness and hinder feeding. Ovine Johne's disease is a wasting disease that affects young sheep. Bluetongue disease is an insect-borne illness causing fever and inflammation of the mucous membranes. Ovine rinderpest is a highly contagious and often fatal viral disease affecting sheep and goats.

A few sheep conditions are transmittable to humans. Scabby mouth, contagious ecthyma or sore mouth) is a skin disease leaving lesions that is transmitted through skin-to-skin contact. More seriously, the organisms that can cause spontaneous enzootic abortion in sheep are easily transmitted to pregnant women. Also of concern are the prion disease scrapie and the virus that causes foot-and-mouth disease (FMD), as both can devastate flocks. The latter poses a slight risk to humans. During the 2001 FMD pandemic in the UK, hundreds of sheep were culled and some rare British breeds were at risk of extinction due to this.

Vocabulary

Homeopathy - гомеопатия

cortisol - кортизол

coolant - смазочно-охлаждающая эмульсия

worm - червь, глист

to incubate - разводить, выращивать

drench - доза лекарства

investation - инвазия

bots - личинки различных видов оводов

itch - зуд, чесотка

mite - клещ

maggot - личинка мясной и сырной мух

malnutrition - недоедание

blow-fly - мясная муха

wound - рана

sinus - пазуха, свищ

rot - гниение, гниль

scald - ожог

foot-bath - ножная ванна

ameness - хромота

rinderpest - чума рогатого скота

scabby - покрытый струпьями

ecthyma - эктима

lesion - повреждение, поражение

enzootic - энзоотический

abortion - аборт

to devastate - опустошать, разорять

flock - стадо

Упражнение 1. Ответьте на вопросы.

1. What diseases of the sheep do you know? What are their symptoms?
2. What treatment do the animals have?
3. What measures should be recommended?

Theme: Animal diseases that threaten man.

Home task:

Read and translate the text (orally). Write down and learn words. Answer questions in writing.

Прочитать и перевести текст (устно). Записать и выучить слова. Ответить письменно на вопросы. Охарактеризуйте тему лекции предложениями из текста. Запишите их.

Animal diseases that threaten man

Animals, domesticated or wild, can be a source of human illness. Such diseases, **transmitted** between animals and man, are often referred to as **zoonoses**.

The animal **inflicted malady** that **inspires** the most fear is **rabies**, a virus that attacks the nervous system. The **saliva** of an **infected** animal contains the deadly virus and comes to us through a **bite** or open **sore** or **wound**. **Rural** people are at greater risk than urban because of the proximity of wild animals and many free **roaming unvaccinated** dogs and cats. **Warn** children about petting or feeding any animal acting abnormally. Have your family pets **inoculated**. Take immediate action if someone is bitten – try to capture the animal for examination by a veterinarian and seek prompt medical consultation.

Brucellosis afflicts cattle, goats and swine. It can be transmitted from infected animals to man through raw milk, contact of an open sore or wound with an **aborted fetus** or after birth or from **carcasses** at the time of **slaughter**.

Undulant fever is a severe and **tenacious** malady that you can avoid through good sanitation and management. Animals should be tested regularly and removed if infected. Check with your state regulatory officials regarding vaccination.

Bovine tuberculosis is much less common today due to **rigorous** testing and **elimination** of infected animals. As bacteria are found in any body **secretion** or **discharge**, **handling tubercular** cattle is a health. Protective measures are regular testing and slaughter of those showing positive reaction, and **pasteurization** of family **consumed** milk.

Trichinosis is a painful and sometimes fatal disease in man. Eating uncooked or partially cooked **infested pork** is how we get in. Thorough cooking of pork is the best prevention.

Salmonella organisms are found in a variety of domestic and wild animals and **poultry**. **Transmission** to people occurs through contaminated food and water. The disease causes severe **gastro-intestinal distress**, fever and loss of appetite, and can be serious for the very young or old.

The natural reservoir of **tetanus** organisms is the intestinal tract of animals, especially horses. The **spores** are introduced into a person's body by contamination of a wound with soil, street dust or **fecal** material. Tetanus is a horrible disease with a high fatality rate; therefore, all rural people should be immunized.

Leptospirosis in humans can be a serious ailment. Carriers include domestic animals, rats and wild rodents. It is passed from animal to animal or to people through contact with **infected urine**, or with soil, feed, water or other materials so contaminated. Once on a farm, the disease is difficult **to eradicate**.

Tularemia is usually acquired by handling wild rabbits and eating imperfectly cooked contaminated meat. Though the disease is not usually life **threatening**, it is characterized by a high fever.

Other zoonoses that farm people should **guard** against include swine **erysipelas**, **animal pox disease, ring worm, tape worm, Newcastle disease, histoplasmosis, psittacosis**, and insect-borne animal diseases.

Here a few general preventive measures.

Keep animal **quarters** clean.

Immunize animals and keep them free of **parasites**.

Quarantine or remove sick animals.

Don't unduly expose yourself to any sick animal.

Wear rubber gloves when treating sick animals or assisting at birth and without fail if you have open sores or wounds on your hands and arms. Wash up and change clothing when finished.

Call your doctor if you become ill after contact with animals.

Vocabulary

to transmit - передавать

zoonosis - зооноз

to inflict - страдать

malady - болезнь; расстройство

to inspire - внушать, вселять

rabies - бешенство

saliva - слюна

to infect - заражать

bite - укус

sore - рана, больное место

wound - рана

rural - сельский, деревенский

unvaccinated - невакцинированный

to roam - бродить, скитаться

to warn - предупреждать

to inoculate - делать прививку

brucellosis - бруцеллез

to afflict - поражать, причинять боль

aborted - недоношенный

fetus - утробный плод

carcass - тело, туша

slaughter - убой скота

undulant fever - мальтийская лихорадка

tenacious - серьезный, крепкий
bovine - бычий
tuberculosis - туберкулез
rigorous - строгий, точный
elimination - уничтожение
secretion - выделение, секреция
discharge - выделение
handling - уход
tubercular - туберкулезный
pasteurization - пастеризация
to consume - потреблять
trichinosis - трихинеллез
to infest - заражать
pork - свинина
poultry - домашняя птица
transmission - передача
gastro-intestinal - желудочно-кишечный
distress - расстройство
tetanus - столбняк
spore - спора
fecal - каловый, фекальный
leptospirosis - лептоспироз
urine - моча
to eradicate - искоренять, уничтожать
to threaten - грозить, угрожать
to guard - защищать
erysipelas - рожа, рожистое воспаление
animal pox disease - болезнь с высыпаниями на коже
ring worm - кольцевые черви
tapeworm - солитер
Newcastle disease - ньюкаслская болезнь (псевдочума, НБ)
histoplasmosis - гистоплазмоз
psittacosis - пситтакоз, попугайная болезнь
quarter - помещение, место, стойло
parasite - паразит
to quarantine - подвергать карантину

Упражнение 1. Ответьте на вопросы.

1. What is zoonosis?
2. What does rabies attack?
3. Who is at greater risk of rabies?
4. What are the ways of brucellosis transmitting?
5. What are the protective measures of Bovine Tuberculosis?
6. What does Salmonella cause?
7. What is the natural reservoir of tetanus organisms?

Theme: ANIMAL HUSBANDRY

Home task: Read and translate the texts (orally). Complete tasks № 1, №2.

Прочитайте и переведите тексты (устно). Выполните задания №1, №2.

TWO BRANCHES OF AGRICULTURE

There are two main branches of agricultural production – crop production and animal husbandry.

Crop production is the practice of growing and harvesting crops. The most important crops grown by man are grain crops, vegetables and grasses. In order to obtain high yields crops are grown under favorable soil and climatic conditions. Animal husbandry is a branch of agriculture including the breeding of farm animals and their use. Dairy and beef cattle, hogs, sheep, and poultry are widely bred throughout the world. Farm animals are highly important sources of food for man. They are kept for the production of such nutritious products as meat, milk and eggs.

Many crops grown by man are used in feeding livestock. At the same time manure produced by farm animals is an important source for the maintenance soil fertility. Most of the nutrients taken by plants from the soil are thus returned. Applying manure, farmers improve the physical condition of the soil.

Thus, crop production and animal husbandry are closely connected with each other.

Vocabulary

some – несколько, некоторый

the same – тот же самый, один и тот же

beef cattle – мясной скот

dairy cattle – молочный скот

egg – яйцо

favourable – благоприятный

grain – зерно

meat – мясо

milk – молоко

nutrient – питательное

вещество **nutritious** –

питательный **poultry** –
домашняя птица

Упражнение 1. Прочитайте тексты и обобщите полученную информацию на иностранном языке, сделайте краткие записи на английском языке.

Animal husbandry

Animal husbandry is the management and care of farm animals by humans for profit, in which genetic qualities and behavior, considered to be advantageous to humans, are further developed. The term can refer to the practice of selectively breeding and raising livestock to promote desirable traits in animals for utility, sport, pleasure, or research, but also refers to the efficient exploitation of a species in agriculture advantageous to humans.

Sustainability

In organic and biodynamic farming methods, animals play an important role in achieving closed or sustainable system by providing multiple functions to the agricultural system. In the Balinese context, for example, ducks are herded through rice paddies at particular stages of the growing season. The ducks eat insects and weeds that inhibit the growth of seedlings, and prevent the farmer from using herbicides or pesticides. Their droppings contribute nitrogen to the soil as a natural source of fertilizer, and the movement of their feet and bills in the water of the terrace ecosystem increases the oxygen content of the soil thus increasing nutrient availability.

MAIN SOURCES OF FOOD

There are three main sources of food for man. They are crops, livestock and fish (рыба). Of these, crops make up about 75% of the world's food production, 23% is contributed by livestock and only 2% of food comes from fish.

Many foods are obtained from farm animals. They are meat, milk and eggs. Milk is often called (называть) the nature's most important food. Meats from farm animals are highly important as food for people. The animals most often used for this purpose are beef cattle, hogs, sheep, and poultry. Meat from mature (взрослый) sheep is known as mutton. How do we call meat from hogs? From mature beef cattle? From young beef cattle?

Упражнение 2. Ответьте на вопросы.

1. What are the two branches of agriculture?
2. What is crop production?
3. What are the main farm crops?
4. What does animal husbandry include?
5. What products do farm animals produce?
6. What is manure used for?
7. How do farmers improve the physical condition of the soil?

Theme: Animals as Useful Biomedical Models in Research.

Home task: Read and translate the texts (orally). Complete tasks № 1, №2.

Прочитайте и переведите тексты (устно). Выполните задания №1-письменно.

Although in modern times the practice of veterinary medicine has been separated from that of human medicine, the observations of the physician and the veterinarian continue to add to the medical knowledge. Veterinary medicine plays a great role in the health of man through the use of animals as biomedical models because animals may suffer from similar diseases as man and research on many genetic and chronic diseases of man cannot be carried out using humans. However, only a few species of more than 1,200,000 species of animals can be utilized in research, though practically for every known human disease, an identical or similar disease exists in at least one animal species.

Animal research has played an important role in every major medical advance of the last century for both human and animal health. Seven of the last ten Nobel Prizes for medicine have depended on animal research, for example, the development of penicillin (mice), organ transplant (dogs), and work on poliomyelitis that led to a vaccine (mice, monkeys). The most important uses of animals in science have included the use of the monkeys (rhesus macaque) for the identification of blood types; dogs (beagles) were subjected to cigarette smoke for research on hog cancer, and the use of dogs by I. P. Pavlov to investigate behaviourism. His development of genetics has allowed increasing the research on genetically modified organisms and the cloning of Dolly the sheep has made her one of the best known experimental animals. Thus, animal studies are of great importance to the development of new surgical techniques, the testing of new cures, the prediction of toman reaction to drugs, and nutritional research. Animals are especially valuable in research on chronic degenerative diseases because (hey can easily be caused experimentally in them. Nowadays more and more people are suffering from chronic degenerative diseases, such as cancer and cardiovascular diseases, so experiments on animals may be of great value. It is obvious that new research discoveries that involve (lie study of animal diseases will result in other important contributions to human health.

Vocabulary

degenerative disease— дегенеративное заболевание

cardiovascular disease— сердечно-сосудистое заболевание

Упражнение 1. Read the text “Animal welfare” and express your own point of view on this problem. Interacting with domestic animals, pets, zoo animals, laboratory animals and even those which live in wild, we have to think about their welfare. What does animal welfare mean?

Прочтите текст «Защита животных» и выскажите свою точку зрения на эту проблему. Взаимодействуя с домашними животными, домашними животными, животными из зоопарков, лабораторными животными и даже с теми, кто живет в дикой природе, мы должны думать об их благополучии. Что означает благополучие животных?

ANIMAL WELFARE

The issue of rearing livestock for human benefit raises the issue of the relationship between humans and animals, in terms of the status of animals and obligations of people. Animal welfare is the viewpoint that animals under human care should be treated in such a way that they do not suffer unnecessarily. What is ‘unnecessary’ suffering may vary. Generally though, the animal welfare perspective is based on an interpretation of scientific research on farming practices.

By contrast, Animal rights is the viewpoint that using animals for human benefit is, by its nature, generally exploitation regardless of the farming practice used. It is a position based on anthropomorphism, in which individuals seek to place themselves in the position of an animal. Animal rights activists would generally be vegan or vegetarian, whereas it is consistent with the animal welfare perspective to eat meat depending on production processes. Animal welfare groups generally seek to generate public discussion on livestock rearing practices and secure greater regulation and scrutiny of livestock industry practices. Animal rights groups usually seek the abolition of livestock farming, although some groups may recognize the necessity of achieving more stringent regulation first. Animal welfare groups, in first world countries given a voice at governmental level in the development of policy. Animal rights groups find it harder to find methods of input, and may go further and advocate civil disobedience or violence.

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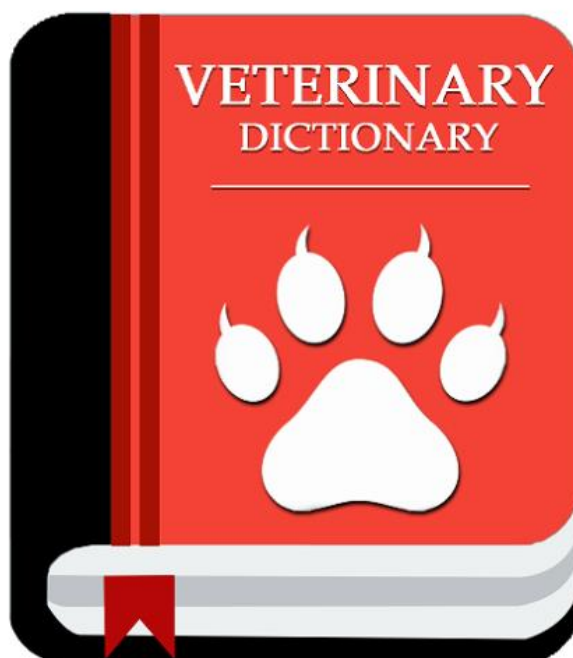
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